Abstract
Audit committees are responsible for initial and subsequent appointment of the external auditor but are not required to disclose reasons for their choice of the auditor. Investors have raised concerns about the lack of audit committee transparency, particularly considering longer auditor tenure in U.S public companies. In recent years, some firms are voluntarily disclosing factors the audit committee considers when reappointing the external auditor. We investigate whether these disclosures are mere representations of favorable impressions or depict audit committees' vigilant monitoring of the auditor. First, we find that the likelihood of disclosure increases with higher perceived impaired auditor independence, investor activism pressure on the board of directors, and audit committee quality. Next, we find that these disclosures negatively moderate the positive association between egregious financial restatements and audit committee member turnover. Finally, we find that the disclosures decrease the likelihood that the financial statements the auditor is reappointed to audit will be restated in future periods. Our results are robust to several additional analyses, including controlling for endogeneity using propensity-score matching and instrumentation. The evidence is relevant to various stakeholders including the SEC, investors and others interested in audit committee transparency. We provide evidence that although some firms voluntarily disclose auditor reappointment factors to create favorable impressions, overall, these disclosures are more indicative of audit committee substantive monitoring of the external auditor. These findings should be relevant to the SEC that has proposed mandating these disclosures.

Audit Committee Disclosure of Auditor Reappointment Factors:
Vigilant Monitoring or Window Dressing

"… I would say point of fact that the group of individuals who hold the most influence over the appointment decision and retention would be management."

1. Introduction

At many U.S. public companies, auditor tenure is very long. For example, the average auditor tenure was 66 years among the twenty-one Dow 30 companies that had released their annual reports by April 13, 2018 (Haimowitz 2018). Given stakeholders' concerns that long audit tenure can decrease auditor effort or impair auditor independence, the continued reappointment of such auditors casts doubts about audit committees' oversight of the audit process. Moreover, as evidenced by the quote above and survey evidence, despite the audit committee's contractual responsibility to appoint and terminate auditors, management continues to wield considerable influence over this process (Cohen, Krishnamoorthy, and Wright 2010; Cohen et al 2012). Some companies are beginning to disclose the factors the audit committee considers in reappointing auditors. This study examines whether these disclosures represent presentations designed to create a favorable impression (i.e., window dressing) or audit committees' substantive oversight (i.e., vigilant monitoring).

On the one hand, companies have incentives to ward off pressure from shareholders and prevent mandatory auditor regulation through these disclosures. Specifically, in the aftermath of the financial crisis of 2008 and the discussions leading to the Dodd-Frank Act of 2010, shareholders questioned the rationale and the process for appointing the same auditor year-over-year, including whether (and how) the board reviews the performance of the auditor. Shareholders' main concern is that prolong incumbent auditor reappointment is a mere rubber-stamp. These discussions, among other things, led to a PCAOB proposal on mandatory auditor rotation (which

has since been abandoned). In the absence of mandatory rotation, some firms are voluntarily disclosing factors they consider when deciding to appoint (or not to appoint) the incumbent auditor.

On the other one hand, audit committees' voluntary disclosure of their considerations in deciding to retain the incumbent auditor potentially provides a window into the audit committee's gatekeeping role and insights about the processes in place to protect auditor independence and professional skepticism. Regulators and investor groups support these voluntary disclosures, calling them a sign of "good board governance" and "increased audit committee quality" (IAASB 2013; CII 2013; SEC 2015; CAQ 2016). Given these views, we begin by formulating three hypotheses to examine the determinants of these voluntary disclosures.

First, we posit that companies facing concerns due to higher perceived auditor independence impairment are more likely to voluntarily disclose the factors the audit committee considered in reappointing the auditor to allay such concerns. Investors and regulators have long argued that firm procurement of higher non-audit services from the incumbent auditor threatens audit quality (PCAOB 2004). In addition, numerous studies provide evidence consistent with investors perceiving non-audit services as impairing auditor independence (Krishnan, Sami and Zhang 2005; Francis and Ke 2006; Chahine and Filatotchev 2011).[1] Due to such negative perceptions, companies face undesirable consequences including lower firm value and a high cost of capital (Brandon, Crabtree and Maher 2004). The audit committee, which approves non-audit services, may choose to maintain the level of non-audit services but still has strong incentives to alleviate perceived auditor independence concerns to avoid its undesirable consequences. By demonstrating that the audit committee diligently considered different factors in reappointing the

[1] Some studies demonstrate no evidence of association between non-audit services and impaired audit quality (e.g. DeFond, Raghunandan and Subramanyam 2002; Ashbaugh et al. 2003; Geiger and Rama 2003).

auditor despite high procurement of non-audit services, companies may hope to appease stakeholders concerned about the incumbent auditor's independence.

Second, we hypothesize that companies have greater incentives to provide auditor reappointment disclosures when the board is the target of investor activism campaigns. Because campaigns often seek to remove or replace board members, including audit committee members, companies have incentives to demonstrate the board's oversight effectiveness to weaken such campaigns. Given that several parties view auditor reappointment disclosures as indicators of good board governance, companies are more likely to provide such disclosures when investor activism is directed at the board.

Third, consistent with regulators' and investors' views, we expect companies with better board governance to be more likely to provide disclosures of auditor reappointment considerations (IAASB 2013; CII 2013; SEC 2015; CAQ 2016). Pursuant to the Sarbanes-Oxley Act of 2002 (hereafter referred to as SOX), audit committees are directly responsible for overseeing the preparation and audit of financial statements (SOX 2002). Hence, effective boards should be more diligent in fulfilling this responsibility. Prior literature suggests effective audit committees produce higher quality financial reports (e.g., Bédard, Chtourou, and Courteau 2004; Abbott, Parker, and Peters 2004; Agrawal and Chadha 2005; Krishnan 2005; Zhang, Zhou, and Zhou 2007; Hoitash, Hoitash, and Bedard 2009). Thus, we expect a positive association between audit committee quality and disclosures of auditor reappointment considerations.

We manually collect 771 firm-year observations of voluntary disclosure of auditor reappointment factors from the period 2011 to 2017 from the SEEK iNF database. We obtain 12,387 firm-year observations of non-disclosure firms for the same period as our control sample, yielding a total sample of 13,158 firm-year observations. We combine this data with variables

obtained from Audit analytics, Boardex, Compustat, CRSP, and Capital IQ. We find results consistent with our three hypotheses. We find a positive association between both the level of non-audit services procured and activism directed at the board and auditor reappointment disclosures. These results suggest that companies use these disclosures to create a favorable impression about the audit committee's monitoring quality when they face pressure about auditor independence impairment and about board ineffectiveness. We also find a higher likelihood of voluntary disclosure of considerations in auditor reappointment as audit committee financial expertise, size, tenure, and women directors increases, consistent with these disclosures signaling higher quality audit committees. Overall, these results are consistent with audit committees perceiving that the disclosure of factors considered in reappointing auditors will appease investors attempting to oust board members or stakeholders concerned about auditor independence impairment. Despite the impression management incentives underlying these disclosures, the results also consistent with the disclosures identifying vigilant monitors - audit committees that are more likely to choose higher quality auditors.

Next, we assess which of the motives, impression management or vigilant monitoring, of auditor reappointment disclosures is dominant in two ways. Specifically, we examine the implications of the disclosures on audit committee member turnover as well as the association between these disclosures and the likelihood that the financial statements the auditor is reappointed to audit will be restated in future periods. Given audit committees' responsibility for financial reporting oversight (SOX 2002), it stands to reason that they are held accountable for financial reporting failure such as accounting misstatements. Accordingly, prior studies find increased audit committee turnover following restatements either because ineffective directors are blamed and fired, or directors voluntarily opt out of the board to salvage their reputation (Srinivasan 2005;

Arthaud-Day, Certo, and Dalton 2006). To the extent that voluntary disclosure of auditor reappointment factors identifies directors who are more diligent in their oversight role, these disclosures should mitigate the positive association between misstatement announcements and director turnover. In addition, we expect these disclosures to be associated with a lower likelihood that the financial statements audited by the reappointed auditor will be subsequently restated.

We find that audit committee directors are less likely to resign or be fired from the board in the presence of egregious misstatement announcements if the firm discloses considerations in auditor reappointment. Moreover, for companies with voluntary disclosure of considerations in auditor reappointment, we find a lower likelihood that the financial statements audited by the reappointed auditor will be subsequently restated. These results provide additional evidence that these voluntary disclosures distinguish audit committees with more vigilant monitoring. Our results are robust to alternative measurements of our variables of interest and to propensity score matching of companies with voluntary disclosure of considerations in auditor reappointment with control firms without such disclosures.

Our study makes several contributions to practice and to the accounting literature. While investors and regulators suggest that voluntary disclosures of auditor reappointment considerations are made by companies with effective audit committees, we are the first to provide empirical evidence of this suggestion. Our evidence suggests that audit committees distinguish their vigilant monitoring when they *voluntarily* disclose the factors they consider in reappointing an incumbent auditor year-over-year. The results are important as regulators consider mandating this disclosure (SEC 2015). On the one hand, mandating the disclosures could induce audit committees to become vigilant monitors. On the other hand, requiring all companies to make such disclosures could

eliminate the use of the disclosure as an important signal of good governance because the audit committees with weak governance will become indistinguishable from the effective ones.

We also contribute to several literature streams. First, we extend prior studies that examine the relation between non-audit services and voluntary disclosures. Prior literature examines the relation between the level of non-audit services and disclosures related to non-audit services (Omer, Bedard, and Falsetta 2006; Bedard, Falsetta, Krishnamoorthy, and Omer 2010). We demonstrate that auditor independence concerns about non-audit services induce companies to voluntarily disclose the factors the audit committee considers in reappointing the audit firm from which such high level of non-audit services is procured. This evidence further illuminates how audit committees mitigate the risks associated with non-audit services.

Second, we contribute to the board turnover and restatement literature (e.g., Srinivasan 2005; Arthaud-Day et al. 2006). In providing evidence of reduced audit committee turnover following severe restatements for companies providing disclosures of auditor reappointment considerations, we highlight how audit committees mitigate the reputational risks and career concerns associated with misstatement announcements. Also, the evidence of decreased future restatements for companies with such disclosures extends studies examining the remedial effects of corporate governance following financial reporting failure (e.g., Farber 2005).

Finally, we extend studies on audit committee disclosures (e.g., Carcello et al. 2002; Rezaee et al. 2003; Pandit et al. 2006). Specifically, we isolate one crucial voluntary type of such disclosures – voluntary disclosures of auditor reappointment factors – and document its drivers. We also provide initial evidence of its implications for audit committee directors' careers and for future financial reporting failure.

2. Background literature and hypotheses

Audit committee oversight and auditor selection

By law, one of the audit committee's primary responsibility is to select, reappoint and dismiss auditors. While the audit committee is now more diligent in fulfilling this role in the post-SOX era, studies find that management still wields significant influence in auditor appointment/reappointment/termination decisions (Cohen et al. 2010; Cohen et al. 2012). For example, Cohen et al. (2010) interview 30 audit managers and partners from three of the Big 4 firms, and report that auditors assigned 53% of actual influence over auditor appointment/reappointment/termination to management. In contrast, despite the charge under SOX, auditors assign only 41% of such influence to the audit committee. Thus, according to this survey evidence, the audit committee is not desirably effective in executing its auditor appointment/reappointment/termination duties.

In addition, companies continue to reappoint the same auditor year-over-year with auditor tenures spanning 100 years or longer (Erickson 2017). Given these long tenures and continuing financial reporting failures, shareholders are questioning the rationale and the process for appointing and evaluating the performance of auditors. Shareholders' main concern is that prolong incumbent auditor reappointment is a mere rubber-stamp. These discussions, among other things, led to a PCAOB proposal on mandatory auditor rotation (which has since been abandoned). In the absence of mandatory rotation, audit committees have begun disclosing the factors they consider in selecting and/or dismissing auditors.

On the one hand, organizational legitimacy theory suggests audit committees might use these disclosures to ward off negative perceptions about their oversight effectiveness (Suchman 1995). We posit that audit committees are more likely to have such legitimacy incentives when they

procure greater non-audit services and hence face stakeholder perception of auditor independence impairment. In addition, audit committees are likely under such pressure when investors launch campaigns seeking to remove board members including those on the audit committee. On the other hand, signaling theory suggests audit committees with more effective oversight over auditor selection/dismissal will signal their type using these disclosures.

2.1. Audit Committee Oversight and Non-audit Services

A wealth of anecdotal and empirical evidence provides strong support for investors perceiving auditor independence to be impaired when companies purchase high levels of non-audit services. For example, Elliot Schwartz, Council of Institutional Investors, stated: "We have established a very bright-line test, which is to say that the appropriate non-audit services that an audit firm ought to provide are zero" (PCAOB 2004, p. 67). Also, Mark Anson from CalPERS stated: "CalPERs has made it clear that if there is a higher cost [of hiring a tax specialist other than the auditor], we are willing to pay that cost, as a shareowner in these public companies, to ensure the integrity of the financial statements" (PCAOB 2004, p. 66). Krishnan et al. (2005) and Francis and Ke (2006) find that the earnings response coefficient on quarterly earnings surprises is decreasing in the level of non-audit fees disclosed in proxy releases. Also, higher NAS fees are associated with lower bond ratings, and increased underpricing of IPOs (Brandon et al. 2004; Chahine and Filatotchev 2011). Further, consistent with shareholders perceiving non-audit services as a threat to auditor independence and audit quality, Mishra, Raghunandan, and Rama (2005) find a negative relation between audit provided tax services and the likelihood of shareholders voting for auditor ratification. Raghunandan and Rama (2003) provide evidence consistent with non-audit services leading to loss of confidence in auditor independence and in the

credibility of audited financial statements, resulting in investors voting against the ratification of auditors (Raghunandan and Rama 2003).

The view that the provision of non-audit services impairs auditor independence is costly to companies, providing incentives to mitigate this adverse perception. Companies with higher levels of non-audit services bear a higher cost of both debt and equity capital (Brandon et al. 2004; Alsadoun et al. 2018). Organizational legitimacy theory posits that organizations may adopt symbols to improve their legitimacy in the face of negative stakeholder perceptions, "even if these supposed indicators amount to little more than face work" (Suchman 1995). Accordingly, managers and auditors attempt to mitigate possible negative stakeholder perceptions of non-audit services (Parkash and Venable 1993; Firth 1997; Hackenbrack 2003). We propose that a mechanism available for tempering adverse stakeholder perceptions of non-audit services is audit committee disclosures. By disclosing that the audit committee considered a variety of factors in selecting the auditor from whom they have procured the high level of non-audit services, the audit committee may ward off concerns about auditor independence impairment. Hence, we hypothesize:

H1: The level of non-audit services is positively associated with audit committee disclosure of auditor reappointment factors.

2.2. Audit Committee Oversight and Investor Activism

Activist investors often launch campaigns seeking to remove or replace board members, including audit committee members, citing weak governance as the reason for their request. For example, the CtW Investment Group, one of Hewlett-Packard's large shareholders, distributed a letter to shareholders stating "We urge you to vote AGAINST the re-election of directors G. Kennedy Thompson and John L. Hammergren, and to vote AGAINST ratification of Ernst &

Young LLC as independent auditor at Hewlett-Packard's (NYSE:HPQ) annual meeting on March 20, 2013. Despite membership changes, we believe the board is hobbled by years' worth of poor judgment, lack of accountability and weak oversight of critical functions." (Clayton 2013).

These campaigns are common and the activist investors highly influential. Of the 2,540 activist campaigns in the S&P Capital IQ database launched during our sample period (2011-2017), over half (53%) specifically sought to replace or add directors to the board. The campaigns are often unsuccessful in that Gow, Shin, and Srinivasan (2011) find that directors are almost twice as likely to leave over a two-year period if the firm faced a shareholder activist campaign. Moreover, the labor market severely penalizes directors when the directors are perceived as weak monitors (Srinivasan 2005; Fich and Shivdasani 2007). To the extent that the labor market views directors that leave a company after an activist campaign as underperforming directors, these directors are likely to also suffer negative labor market consequences. The consequences include reduced pay and lost board positions at other companies, particularly after financial reporting failure and for audit committee directors (Srinivasan 2005; Fich and Shivdasani 2007). To thwart the replacement attempts by these increasingly vocal and influential investors, board members may indicate their good governance by disclosing their careful consideration of a variety of factors in the reappointment of auditors. Thus, we hypothesize:

H2: Investor activism is positively associated with audit committee disclosure of auditor reappointment factors.

2.3. Audit Committee Oversight and Audit Committee Quality

Contractually, under SOX, audit committees are directly responsible for selecting and dismissing auditors (SOX 2002). Therefore, to be effective, audit committees must diligently fulfill this role, leading to higher audit quality. We can thus infer that companies with high audit quality

have more effective audit committees, identified as larger audit committee size and greater audit committee financial expertise (e.g., Bédard et al. 2004; Abbott et al. 2004; Agrawal and Chadha 2005; Krishnan 2005; Zhanget al. 2007; Hoitash et al. 2009). Signaling theory (e.g., Spence 1973) suggests more effective audit committees will signal their type by disclosing information that uniquely demonstrates their effectiveness in appointing/terminating auditors. Consistent with this theory, regulators and investors view disclosures of auditor reappointment considerations to be indicative of effective audit committees (IAASB 2013; CII 2013; SEC 2015; CAQ 2016). The Council for Institutional Investors in their Policies on Corporate Governance explicitly advocate detailed audit committee reporting. They state: "The report should include a fact specific explanation for not changing the company's auditor if the committee chooses to renew the engagement of an auditor with more than 10 consecutive years of service, or if the auditor is retained despite knowledge of substantive deficiencies identified during the committee's review of the considerations described above." To the extent that audit committees perceive the disclosure of audit reappointment factors to be a viable signal of good governance and a legitimacy enhancing tool, we hypothesize:

H3: Audit committee quality is positively associated with audit committee disclosure of auditor reappointment factors.

2.4. Auditor Reappointment Disclosures: Window Dressing or Vigilant Monitoring

Our hypotheses so far examine whether the "window dressing" (H1 and H2) and the "vigilant monitoring" (H3) motives for disclosing auditor reappointment factors exist. Tests of these hypotheses would however not identify the dominant motive underlying these disclosures. To address this objective, we examine the implications of the disclosures on audit committee member turnover in periods of financial reporting failures as well as the association between these

disclosures and future audit quality as proxied by financial misstatements. Given audit committees' responsibility for financial reporting oversight (SOX 2002), it stands to reason that they are held accountable for financial reporting failure such as egregious accounting misstatements. Accordingly, prior studies find increased audit committee turnover following restatements either because ineffective directors are blamed and fired, or directors voluntarily opt out of the board to salvage their reputation (Srinivasan 2005; Arthaud-Day et al. 2006). Specifically, Srinivasan (2005) examine the consequences of earnings restatements for outside directors and particularly audit committee members. He finds that while audit committee members at restating firms rarely experience penalties from lawsuits and Securities Exchange Commission (SEC) actions, they experience severe labor market penalties by exiting both the board of the restating firms and other boards. Arthaud-Day et al. (2006) provide corroborating evidence documenting approximately a 70 percent exit likelihood for audit committee members from restating firms.

To the extent that voluntary disclosure of auditor reappointment factors identifies directors who are more diligent in their oversight role, these disclosures should mitigate the positive association between financial reporting failures and audit committee director turnover. On the other hand, if the disclosures on average represent window dressing, they should exacerbate the positive association between financial reporting failures and audit committee director turnover. Given these contrasting views, we formulate a non-directional hypothesis as follows.

H4: Audit committee disclosure of auditor reappointment factors is not associated with Audit committee director firing/resignation in periods of financial reporting failures.

In addition, if the "vigilant monitoring" motive dominates, we expect these disclosures to reduce poor audit quality of the financial statements the auditor is reappointed to audit.

Specifically, we expect audit committee voluntary disclosure of auditor reappointment factors to be associated with a lower likelihood that the financial statements audited by the reappointed auditor will be subsequently restated. Whereas, we should find the disclosures to be positively associated with future restatements if the "window dressing" motive dominates. Given that the sign of the relation between audit committee disclosure of auditor reappointment factors and the reappointed auditors' misstatements is unclear, we make the following non-directional prediction.

H5: Audit committee disclosure of auditor reappointment factors is not associated with future restatements.

3. Sample selection and research design

Sample selection and data source

The sample consists of all U.S. publicly-traded companies with available data in the Compustat, Audit Analytics, and BoardEx databases from fiscal year 2011 to 2017. We obtain data on investor activism directed at the board of directors from the Standard & Poors Capital IQ database. We begin the sample in fiscal year 2011 because voluntary disclosure of auditor reappointments factors are rare until fiscal year 2011. We exclude financial firms because their financial reporting is different from non-financial firms, and they have different corporate governance structures. After excluding financial firms and firms with missing data in the Compustat, Audit Analytics, and BoardEx databases, the primary sample consists of 13,158 firm-year observations.

To identify firms disclosing auditor reappointment factors and the exact date of the disclosures, we manually search SEEK iNF, by SeekEdgar and their database on the cloud of all proxy statements (DEF14A), 10-Ks, 8-Ks, and 6-Ks filed with the SEC and housed on the EDGAR

database.[2] We use a combination of proximity and exact search strings to obtain a listing of firms making the disclosures. Appendix A, Panel A provides a listing of our search strings, and Appendix A, Panel B provides two examples of audit committee voluntary disclosure of auditor reappointment factors for Vertex Pharmaceuticals, Inc. (NASDAQ: VRTR), which was first disclosed in the company's 2012 proxy statement (Part I) and Walgreens Boot Alliance, Inc. (NASDAQ: WBA), which was first disclosed in the company's 2016 proxy statement (Part II). As shown in the two examples in Panel B, reasons for reappointing the auditor differ from firm to firm, and the length of the disclosures can range from a few sentences to detailed description of factors considered.

Table 1 presents the sample selection and industry membership. Panel A describes the primary sample, and Panel B breaks the primary sample into firm-years with and without voluntary disclosure of auditor reappointment factors. From Panel B, in 2011, only 27 (or 1.41%) of firms in our sample disclosed factors the audit committee considered in reappointing the auditor. By 2017, the number of firms disclosing auditor reappointment factors increased to 222 (or 12.80%), and there are 771 firm-year observations of voluntary disclosure of auditor reappointment factors from 2011 to 2017. In untabulated analysis, the number of S&P 500 firms disclosing factors considered in reappointing the auditor increased from 5.34% in 2011 to 30.43% in 2017, suggesting that the rate of disclosure is increasing over time and higher among larger firms.[3] Panel C shows industry membership of the primary sample, and how the primary sample compares to all population of non-financial firms in the Compustat database during the sample period.

<<< Insert Table 1 here >>>

[2] In our sample, almost all firms disclosing auditor reappointment factors do so via their proxy statements (form DEF 14A).

[3] This is consistent with a 2017 report by Ernest and Young Center for Board Matters. The report documents that the number of Fortune 100 firms disclosing considerations in auditor reappointment increased from 18% in 2012 to 62% in 2018 (seehttps://www.ey.com/en_us/board-matters/audit-committee-reporting-to-shareholders-in-2018).

Empirical model for hypotheses 1, 2 and 3

To examine whether perceived impaired audit quality (Hypothesis 1), investor activism directed at board of directors (Hypotheses 2), and audit committee quality (Hypothesis 3) are associated with the likelihood of voluntary disclosure of auditor reappointment factors, we estimate the regression specified in Equation (1).

$$VOLDISC = f\{NASRATIO, ACTIVISM, ACQUALITY, \text{Control variables}\} \quad (1)$$

Dependent variable: Likelihood of voluntary disclosure of auditor reappointment factors (VOLDISC)

The dependent variable, *VOLDISC* measures the existence of a voluntary disclosure of audit committee considerations in auditor reappointment, and equals 1 if the firm discloses in the proxy statement the factors the audit committee considered in reappointing the auditor for the coming fiscal year, and zero otherwise.

Test variable: Perceived impaired auditor independence (NASRATIO)

The first independent test variable, *NASRATIO* measures perceived threat to audit quality. Investors and regulators have long viewed higher non-audit services from the incumbent auditor as a threat to auditor independence and audit quality (Simunic 1984; Beck et al. 1988a; Sharma and Sidhu 2001; Frankel et al. 2002; Kinney et al. 2004), and the market responds negatively to higher non-audit services to the incumbent auditor (Brandon et al. 2004; Krishnan et al. 2005; Francis and Ke 2006; Chahine and Filatotchev 2011). Section 202 of SOX requires the audit committee to pre-approve and disclose amount of non-audit services to the incumbent auditor. The academic literature often uses the amount of non-audit service fees relative to total fees (non-audit fees plus audit fees) as proxy for the threat to auditor independence (e.g. Ashbaugh, LaFond, and Mayhew 2003; Naiker, Sharma, and Sharma 2012; DeFond and Zhang 2014). Therefore, we

measure *NASRATIO* as the ratio of total non-audit services fees to total fees paid to the external auditor during the current fiscal year.[4] Audit committee disclosure of auditor reappointment factors (a voluntary disclosure) is typically contained in the same proxy statement which firms use to disclose the amount of non-audit services fees relative to audit fees (a required disclosure). As indicated previously, we expect the likelihood of disclosure of considerations in auditor reappointment to be higher when amount of non-audit services fees relative to audit fees is higher. Thus, we expect the coefficient of *NASRATIO* to be positive.

Test variable: Investor activism communication to remove (appoint) directors from (to) the board of directors (ACTIVISM)

Our second independent test variable, *ACTIVISM* captures investor activism communication directed at the board of directors. In the context of this paper, the board of directors of a firm is said to experience "investor activism" in year *t* if an investor files material that seeks to remove or nominate directors to the firm's board of directors or a committee of the firm's board of directors in the 12 months subsequent to the proxy filling date. Thus, *ACTIVISM* is an indicator variable that equals 1 if the firm experiences investor activism directed towards the board of directors during the 12 months preceding the proxy filling date, and zero otherwise.[5] We expect the likelihood of disclosure of considerations in auditor reappointment to be higher for firms with investor activism pressure. Thus, we expect a positive coefficient on *ACTIVISM*.

Test variable: Audit committee quality (ACQUALITY)

The nature of voluntary disclosure we examine in this study is particularly driven by the

[4] In supplementary tests, we examine alternative measures of NAS fees such as the natural logarithm of total NAS fees (*LOG_NAS*), ratio of total NAS to audit fees (*NAS_TO_AUFEE*), and the dollar value of NAS fees (*$NAS*) that have been employed in prior research (DeFond et al. 2002; Abbott et al. 2003; Raghunandan et al. 2003; Naiker et al. 2013).

[5] In the additional analyses section, our results persist when we use the log of the number of investor activism communication seeking to remove or nominate directors to the firm's board.

audit committee of the board of directors. The literature suggests that an audit committee composed of financial experts, more directors, directors with experience within the firm's own board and other boards, and female directors is more likely to be effective at monitoring the external auditor (e.g. DeFond, Hann and Hu 2005; Naiker and Sharma 2009; Srinidhi, Gul and Tsui 2011). Therefore, our test variable, *ACQUALITY* represents one of the following audit committee quality factors: the percentage of audit committee directors who are financial experts (*ACEXPRT*), the number of audit committee directors (*ACSIZE*), tenure of audit committee directors on the firm's own board (*ACTEN*), external directorships held by audit committee directors (*ACSOSCAP*), and percentage of female directors on the audit committee (*ACWOM*). We expect audit committee director quality variables to be positively associated with *VOLDISC*.

Independent control variables:

We control for several firm characteristics used in the voluntary disclosure literature (e.g. Healy and Palepu 2001; Chen, Chen, and Cheng 2008; Francis, Nanda, and Olsson 2008). More specifically, these variables include firm size (*ASSETS*), growth (*GROWTH*), leverage (*LEV*), losses (*LOSS*), whether the firm operates in a litigious industry (*LIT*), return on assets (*ROA*), and an ex-post measure of the need to raise additional financing *(XFIN*). Based on the prior studies, we predict a positive coefficient for *ASSETS* and *LIT*, a negative coefficient for *XFIN*, and offer no directional prediction on the coefficients for *GROWTH*, *LEV*, *LOSS*, and *ROA*. We include the variable *SP500* to control for a firm's membership in the S&P 500 index because, as indicated previously, the rate of disclosure of auditor reappointment factors is higher (lower) for S&P 500 (non-S&P 500) firms.

We control for *BIGN* to capture whether the firm is audited by a big 4 audit firm. To capture poor financial reporting quality, we control for auditor discovery and reporting of material internal

control weaknesses (*ICW*). We expect a positive coefficient on *SP500* and *BIGN* but offer no directional prediction on the coefficient for *ICW*. In addition to our test variables which are mainly corporate governance variables, we include *BIND* to account for the percentage of independent directors on the board and *INSTOWN* to account for the percentage of institutional ownership of the firm's common stock. We expect *BIND* and *INSTOWN* to be positively associated with *VOLDISC*. Finally, we control for year and industry fixed effects using the Fama-French 12 industry portfolio. All continuous variables in this study are winsorized at the top and bottom 1% of their distribution. All the regressions in this study (tabulated and untabulated) are estimated with standard errors adjusted based on the Huber-White sandwich estimate of variances. In Appendix B, we define the dependent variables used in the main analyses (Panel A) and the additional analyses (Panel B), test variables used in the main (Panel C) and additional (Panel D) analyses, and the control variables (Panel E).

Empirical model and variables for hypothesis 4

Srinivasan (2005) finds that financial reporting failures in the form of accounting restatements carry significant career consequences, in the form of firings and resignations for audit committee directors. To gain insights on whether audit committee voluntary disclosure of auditor reappointment factors is perceived to be vigilant monitoring of the auditor as contained in the fourth hypothesis (H4), we estimate the moderation regression in equation (2) below. The moderation regression examines whether audit committee disclosure of auditor reappointment factors mitigates a positive association between accounting restatements and audit committee director firings/resignations.

$$AC\_EXIT = f\{RESTANN,\ VOLDISC,\ RESTANN \times VOLDISC,\ \text{Control variables}\} \qquad (2)$$

Dependent variable: Audit committee director firing/resignation (AC_EXIT)

The dependent variable, *AC_EXIT* is an indicator variable that equals 1 if one or more audit committee directors get fired or resign from the board within 12 months of egregious financial restatement announcement (defined below), and zero otherwise.[6]

Independent test variables: RESTANN, VOLDISC, RESTANN×VOLDISC

The dependent variable, *RESTANN* equals 1 if the firm announces a restatement of previously issued financial statements in the current fiscal year, and 0 otherwise. Restatements announcements are defined to include Item 4.02 non-reliance restatements as these are material and more egregious, and receive negative market reactions, compared to non-material revision restatements (e.g., Hennes, Leone, and Miller 2008; Burks 2011; Iskander-Datta and Jia 2012). We limit the non-reliance restatement announcement to those having a negative impact on previously reported financial statements because these restatements elicit audit committee departures from the board (Srinivasan 2005).[7] Consistent with Srinivasan (2005), we expect audit committee director departures from the board to increase following the announcement of egregious financial restatements. Thus, we expect the coefficient on *RESTANN* to be positively associated with *AC_EXIT*. To examine H4, which is whether voluntary disclosure of auditor reappointment factors mitigates this relationship, we include *VOLDISC* (as defined for Equation (1)) and interact this variable with *RESTANN* to create our primary variable of interest, *RESTANN* × *VOLDISC*. To the extent that these voluntary disclosures are indicative of vigilant monitoring (window dressing), we should observe a negative coefficient (a positive coefficient) on *RESTANN*×*VOLDISC*.

[6] In the additional analyses section, our results persist when we modify *AC_EXIT* to equal the log of the number of audit committee directors who gets fired or resign from the board within 12 months following egregious restatement announcement. Our results also persist when we modify *AC_EXIT* to equal the percentage of audit committee directors who gets fired or resign from the board within 12 months following egregious restatement announcement

[7] Our results are qualitatively similar when we do not apply this restriction.

Independent control variables

Consistent with the extant literature, we control for variables associated with board, particularly audit committee director turnover (Gilson 1990; Hermalin and Weisbach 1998; Farrell and Whidbee 2000; Yermack 2003; Srinivasan 2005). We control for *ACTIVISM*, *ACSIZE*, *ACEXPRT*, *ACTEN*, *ACSOSCAP*, and *ACWOM*, *ASSETS*, *GROWTH*, *LEV*, *LIT*, *ROA*, *ICW*, and *INSTOWN*. These variables are as defined for Equation (1) above. We also control for average audit committee director age (*ACAGE*), restructuring activities (*RESTR*), CEO turnover (*CEOTURN*), and new CEO (*NEWCEO*). We expect *ACTIVISM*, *LIT*, *ICW*, *ACSIZE*, *RESTR*, *ACSOSCAP*, *INSTOWN*, *ACAGE*, *RESTR*, *CEOTURN*, and *NEWCEO* to be positively associated with *AC_EXIT*, and *GROWTH*, *ROA*, *ACEXPRT* and *ACWOM* to be negatively associated with *AC_EXIT*. We do not offer a directional prediction on the coefficients for *ASSETS*, *LEV*, and *ACTEN*.

Empirical model and variables for hypothesis 5

To test the effect of audit committee voluntary disclosure of auditor reappointment factors on future audit quality as demonstrated in hypothesis 5 (H5), we examine the association between voluntary disclosure of auditor reappointment factors during the current proxy filing season and the likelihood that the financial statements the auditor has been reappointed to audit will be subsequently restated in future periods.[8] We employ the likelihood of restatement as a proxy for audit quality because it is the most actual and direct measure of poor audit quality during the current period (Shibano 1990; DeFond and Zhang 2014), and the absence of a restatement of

[8] Our restatement sample for the audit committee director firings or resignations test in Equation (2) is different from the restatement sample for the audit quality test in this section, Equation (3). The restatement sample used in Equation 2 are egregious restatement *announcements* relating to *prior years'* audited financial restatements. The restatements sample in Equation (3) relates to egregious misstatements during the fiscal years the auditor is reappointed to audit (i.e. *subsequent* to the disclosure of considerations in auditor reappointment).

current period's financial statements in future periods is indicative of good audit quality in the current period (DeFond and Zhang 2014).[9] We employ the functional form specified in Equation (3) below, with the dependent, test, and control variables defined in Appendix B:

$$IS\_REST = f\{VOLDISC, \text{Control variables}\} \quad (3)$$

Dependent variable: Likelihood that the financial statements the auditor is reappointed to audit is restated in future periods (IS_REST)

The dependent variable *IS_REST*, is an indicator variable that equals 1 if the annual financial statements the auditor is reappointed to audit are subsequently restated in future periods, and 0 otherwise. We confine our restatement sample to Item 4.02 non-reliance restatement, and we identify restated financial statements from the respective fiscal year (2011, 2012, 2013, 2014, 2015 and 2016) to July, 2019.[10] We exclude fiscal year 2017 from the restatement sample because we require a minimum of 24 months between the fiscal year end and our last data collection date to allow firms to discover misstatements and restate previously issued financial statements. Our approach is consistent with the literature because it often takes several months and sometimes years before a restatement is announced and reported (Karpoff et al. 2008a, 2008b; Denis 2012; deHaan et al. 2013).

Independent test variables: VOLDISC

The test variable, *VOLDISC* is as defined for Equation (1). If the dominant motive for audit committee voluntary disclosure of auditor reappointment factors is vigilant monitoring (window dressing), the coefficient on *VOLDISC* should be negative (positive).

[9] A concurrent study, Bratten, Causholli, and Sulcaj (2019) examines the association between audit committee voluntary disclosures (in general) and audit quality. The authors indicate they are unable to examine the likelihood of restatement as proxy for audit quality due to limitations in the data employed in their study. Our manual data collection which identifies these disclosures as far back from fiscal year 2011 enables us to examine the less subjective measure of audit quality - restatements.

[10] Consistent with the literature examining misstated periods, there are more financial restatement observations in the early periods of our sample (e.g. fiscal 2011 and 2012) compared to later periods of sample (e.g. fiscal 2015 and 2016).

Independent control variables

We include a comprehensive set of control variables capturing firm, auditor characteristics, prior audit quality and governance characteristics. We draw these control variables from the prior literature on financial restatements (e.g., Burns and Kedia 2006; Efendi et al. 2007). The control variables, which are previously defined for Equations (1) and (2) above, are *RESTANN*, *ACEXPRT*, *ACSIZE*, ASSETS, *GROWTH*, *LEV*, *LOSS*, *ROA*, *BIGN*, *ICW*, *BIND*, *INSTOWN*, and *RESTR*. The additional control variables are foreign operations (*FOROPS*), acquisition activities (*MERGER*), and audit fees (*AUFEE*). We expect a positive (negative) coefficient on *RESTANN*, *LEV*, *ICW*, *RESTR*, *FOROPS*, and *MERGER* (*BIND*, *ACEXPRT*, and *ACSIZE*). We do not offer directional predictions on the coefficients for *ASSETS*, *GROWTH*, *LOSS*, *ROA*, *BIGN*, *INSTOWN* and *AUFEE*.

4. Empirical results

Descriptive statistics

We present the descriptive statistics of our variables in Panels A through D of Table 2. From Panel A, on average, 5.86 percent of firms in our sample disclose auditor reappointment factors. The unadjusted mean and median NAS fees are $652,492 and $119,091, respectively. The mean (median) *NASRATIO* is 0.141 (0.106). From Panel B, the mean and median *NARATIO* for firms which make (do not make) voluntary disclosure of considerations in auditor reappointment (*VOLDISC*) are 0.186 (0.139) and 0.152 (0.103), respectively; the mean difference test statistic is significant ($p < 0.01$). From Panel A, on average, 5.68 percent of firms in our sample received activism communication directed at the board of directors (*ACTIVISM*). From Panel B, the mean and median *ACTIVISM* for firms which make (do not make) voluntary disclosure of auditor reappointment factors are 0.104 (0.054) and 0.00 (0.00), respectively; the mean difference test

statistic is significant ($p < 0.01$). These statistics provide initial evidence that firms which disclose auditor reappointment factors have higher *NASRATIO* and experience investor activism against the board of directors than firms that do not.

We turn our attention to the audit committee quality variables. From Panel A, the mean (median) *ACEXPRT*, *SIZE*, *ACTEN*, *ACSOSCAP*, and *ACWOM* are 0.521 (0.500), 1.639 (1.609), 2.087 (2.111), 0.982 (0.916), and 0.121 (0.120), respectively. From Panel B, on average, *ACEXPRT* of firms which make (do not make) voluntary disclosure of auditor reappointment factors is 60.9% (51.5%); the mean difference test statistic is significant ($p < 0.01$). On average, *ACSIZE* of firms which make (do not make) voluntary disclosure of auditor reappointment factors is 1.7 (1.6); the mean difference test statistic is significant ($p < 0.01$). Similarly, on average, *ACTEN* of firms which make (do not make) voluntary disclosure of auditor reappointment factors is 2.13 (2.08); the mean difference test statistic is significant ($p < 0.01$). On average, *ACSOSCAP* of firms which make (do not make) voluntary disclosure of auditor reappointment factors is 1.02 (0.98); the mean difference test statistic is significant ($p < 0.01$). Finally, on average ACWOM of firms which make (do not make) voluntary disclosure of auditor reappointment factors is 18.7% (11.7%); the mean difference test statistic is significant ($p < 0.01$). Collectively, the above statistics provide initial evidence that disclosure of auditor reappointment factors increases with audit committee quality.

From Panel A of Table 2, the mean (median) *AC_EXIT* is 0.024 (0.000). From Panel C, the mean and median *AC_EXIT* for firms which make (do not make) voluntary disclosure of considerations in auditor reappointment are 0.031 (0.059) and 0.00 (0.00), respectively; the mean difference test statistic is significant ($p < 0.05$). Similarly, from Panel C, the mean and median *AC_EXIT* for firms that experience (do not experience) a restatement announcement are 0.121

(0.062) and 0.00 (0.00), respectively; the mean difference test statistic is significant ($p < 0.01$). Taken together, on a univariate basis, audit committee directors are more likely to be fired or resign from the board following the announcement of egregious restatements and are less likely to do so when the firm discloses considerations in auditor reappointment.

Finally, from Panel A of Table 2, the mean (median) likelihood that the financial restatement the auditor is reappointed to audit will be restated in future periods (*IS_REST*) is 0.057 (0.000). From Panel D, the mean and median *IS_REST* for firms which make (do not make) voluntary disclosure of auditor reappointment factors (*VOLDISC*) are 0.026 (0.050) and 0.000 (0.000), respectively; the mean difference test statistic is significant ($p < 0.01$). This suggests that, on a univariate basis, the likelihood of future restatement of the financial statements the auditor is reappointed to audit decreases for firms that disclose considerations in auditor reappointment. The descriptive statistics for all control variables are generally consistent with the literature.

>>> Insert Table 2 here>>>

Table 3 presents the correlation between variables in the main regressions. From Table 3, all correlations are below the 0.80 multicollinearity threat threshold (Kennedy 1992). Moreover, the highest of all untabulated variance-inflation factors is 3.015. This is well below the recommended threshold of 10, beyond which multicollinearity may be a problem (Kennedy 1992).

>>> Insert Table 3 here>>>

Multivariate analyses

Hypotheses 1, 2 and 3

Hypotheses 1 and 2 predicts that the likelihood of audit committee disclosure of auditor reappointment factors (*VOLDISC*) increases with higher perceived threat to auditor independence (*NASRATIO*) and shareholder activism communications to remove or nominate directors to or

from the board (*ACTIVISM*). Table 4 presents the logistic regression results for Equation (1). From Table 4, *NASRATIO* has a positive coefficient that is significant at p <0.01. The results suggest that, overall, firms are more likely to disclose auditor reappointment factors when perception of impaired auditor independence is higher. Further, in untabulated analyses, the marginal effects of *NASRATIO* on *VOLDISC* is economically meaningful as we find that moving from the first quartile to the third quartile of *NASRATIO* results in a 36.08 percent increase in likelihood that a firm discloses auditor reappointment factors.[11] Similarly, from Table 4, *ACTIVISM* has a positive coefficient that is significant at p <0.01. The results suggest that, overall, firms are more likely to disclose auditor reappointment factors if the firm receives activism communication seeking to remove or appoint directors to the board. The economic significance calculations indicate that, on average, a one standard deviation increase in *ACTIVISM* is associated with a 14.68% increase in *VOLDISC*.[12] Taken together, higher perception of impaired auditor independence and activism communication seeking to remove or appoint new directors to the board are important determinants of voluntary disclosure of auditor reappointment factors. The findings from hypotheses 1 and 2 suggest audit committees are making these voluntary disclosures in response to investor pressure.

Hypothesis 3 predicts that audit committee quality increases the likelihood of audit committee voluntary disclosure of auditor reappointment factors. From Table 4, we note four of the five audit committee quality variables; *ACEXPRT*, *ACSIZE*, *ACTEN*, and *ACWOM* are positive

[11] We use the "margins" function in STATA to estimate the adjusted predicted probability of *VOLDISC* at the first and third quartiles of the test variable, *NASRATIO*, while holding all other variables at their mean values (Williams 2012). The STATA margins estimate of adjusted predicted probabilities at the first and third quartiles of *NASRATIO* are 0.0298865 and 0.0406693. The change in predicted probabilities equates to an increase of 36.08%. The economic effect based on [exp(1.697)-1]*0.136 equates to 60.62% increase.

[12] We do not compute economic significance for *ACTIVISM* results using the "margins" function in STATA because, as shown in Table 2, the first and third quartiles of *ACTIVISM* are 0.000. Instead, we calculate economic significance as [exp(0.492)-1]*0.231=0.14682.

and significantly ($p < 0.01$, $p < 0.01$, $p < 0.05$, $p < 0.01$, respectively) associated with *VOLDISC*.[13] The results indicate that high quality audit committees are more likely to voluntary disclose auditor reappointment factors. Thus, contrary to results of hypotheses 1 and 2, the results of hypothesis 3 suggest these disclosures may be indicative of vigilant monitoring of the auditor. Thus, these results support both a window dressing (hypotheses 1 and 2) and a vigilant monitoring (hypothesis 1) motive for voluntarily disclosing factors the audit committee considered in reappointing the external auditor.

Turning to the control variables, firm size, firms in litigious industries, and membership in S&P 500 increase the likelihood of voluntary disclosure of auditor reappointment factors, but the ex-post measure of the need to raise additional financing, auditor discovery and report of material internal control weaknesses, and higher board independence decrease the likelihood of the disclosure of considerations in auditor reappointment.[14]

>>> Insert Table 4 here>>

Hypothesis 4

We present the logistic regression results for H4 in Table 5. First, we test the association between restatement announcement (*RESTANN*) and audit committee director firings/resignations (*AC_EXIT*) and present the results in Column 1. We note that *RESTANN* is positive and significantly ($p < 0.01$) associated with *AC_EXIT*. This is consistent with findings in Srinivasan (2005) suggesting that board of directors, particularly audit committee directors are more likely to depart from the board following egregious misstatement announcements. Column 2 presents the results of the interaction effect – H4. The results in Column 2 are interesting. First, the coefficient

[13] *ACSOSCAP* is not significantly associated with *VOLDISC*.
[14] Results on board independence may be due to the fact that the traditional measure of board independence used in this study does not capture actual board independence.

on the interaction term, *RESTANN*×*VOLDISC* is negative and significantly (P < 0.01) associated with *AC_EXIT*. This indicates that audit committee disclosure of auditor reappointment factors decreases the likelihood that audit committee directors get fired or resign from the board when the firm experience egregious restatement announcements. Next, we turn our attention to results on *RESTANN* and *VOLDISC* individually. The coefficient on *RESTANN* continues to be positive and significantly (p < 0.01), while the coefficient on *VOLDISC* is negative and significantly (P < 0.5) associated with *AC_EXIT*. The results suggest that despite the negative interaction effect, *VOLDISC* (*RESTANN*) is individually negatively (positively) associated with audit committee director firings/resignations. Collectively, the results suggest that these voluntary disclosures are indicative of vigilant monitoring because audit committee members of firms that disclose auditor reappointment factors are more likely to remain on the board in periods of financial reporting failures. Further, our findings extend Srinivasan (2005) by providing evidence that audit committee firings/resignations following egregious financial restatement diminishes when firms voluntary disclose auditor reappointment factors.

>>> Insert Table 5 here>>>

Hypothesis 5

Table 6 presents results for the regression of *IS_REST* on the control variables and our test variable, *VOLDISC*. The results indicate a significant negative association between *VOLDISC* and *IS_REST* (p < 0.05). The negative coefficient on *VOLDISC* suggests that the likelihood that the financial statements the auditor is reappointed to audit will be restated in future period decreases among firms disclosing auditor reappointment factors. The economic significance calculations indicate that, on average, a one standard deviation increase in *VOLDISC* is associated with a 7.62% decrease in *IS_REST*. Thus, voluntary disclosure of considerations in auditor reappointment during

the current proxy filing season indicates high audit quality of the financial statements the auditor is reappointed to audit.

In summary, the empirical results for H4 and H5 suggests that, on average, audit committee voluntary disclosure of auditor reappointment factors is more indicative of audit committee vigilant monitoring of the auditor than of window dressing.

>>> Insert Table 6 here>>>

5. Additional analyses

Controlling endogeneity using Propensity Score Matching and instrumental variables

Our empirical models examining the effect of audit committee disclosure of auditor reappointment factors on audit committee turnover and restatements pose endogeneity concerns because the disclosure is a choice activity. As shown in Table 2, only about 5.9% of firms in our sample disclose auditor reappointment factors. Although the empirical models estimating the effect of *VOLDISC* on *AC_EXIT* and *IS_REST* control for several variables that can influence the choice to disclose considerations in auditor reappointment, *VOLDISC* could still be driven by observable firm and governance characteristics. For example, it is possible that observable firm size and audit committee variables correlate with *VOLDISC* and *AC_EXIT*, or with *VOLDISC* and *IS_REST*. We address this sample selection bias concern in several ways. First, the *VOLDISC* and *AC_EXIT* (*IS_REST*) models each control for firm size and several audit committee variables. Second, as shown in Table 3, the correlation between *VOLDISC* and firm size (*ASSETS*) is 0.158 and the highest level of correlations among *VOLDISC* and the audit committee characteristics measures (*ACSIZE*, *ACEXPRT*, *ACTEN*, *ACSOSCAP*, *ACWOM*) is 0.143. These low correlations suggest that firm size and audit committee characteristics are unlikely to affect the main results. Finally, for completeness, we address potential endogenous effects arising from observable

characteristics using propensity score matching (PSM) (Rosenbaum and Rubin 1983) and omitted correlated variables using two-stage regression analyses.

Using PSM helps us reduce functional form misspecification because we are able to obtain a sample of disclosure and nondisclosure firms that are similar across several dimensions (Rosenbaum and Rubin 1983; Shipman, Swanquist and Whited 2016; DeFond, Erkens and Zhang 2016). Despite this benefit, Shipman et al. (2016) discuss several limitations of PSM. The limitations are driven mostly by studies that coerce a treatment construct that is a continuous measure and inappropriate design choices. On the contrary, our treatment variable, *VOLDISC*, is binary, which eliminates potential decreasing treatment variation associated with coarsening a continuous treatment construct as discussed in Shipman et al. (2016). Further, we follow the advice of Shipman et al. (2016) to construct our PSM sample, which we discuss below.

First, to obtain the PSM sample, we create a non-disclosure control sample with the closest probabilities of a disclosure firm. We use Equation (1) to estimate the likelihood of voluntary disclosure of auditor reappointment factors. As discussed previously, Equation (1) includes a broad range of firm-specific and governance determinants of voluntary disclosure of auditor reappointment factors. We use the variables that are significant in Equation (1) to estimate propensity scores separately for each sample year, controlling for industry membership. Overall, the one-to-one match with replacement and 0.1 caliper yields 771 (549) non-disclosure control sample for the *AC_EXIT* (*IS_REST*) samples, respectively.[15] Together, the voluntary disclosure firms plus the non-disclosure matched-firms yields 1,542 (1,098) firm-year observations for the *AC_EXIT* (*IS_REST*) samples, respectively. [16] We present the results of our PSM analyses in Table

[15] One-to-one match mitigates concerns associated with sampling variance (Shipman et al. 2016; DeFond et al. 2016).
[16] Sample size reduces from 1,542 observations for *AC_EXIT* to 1,098 observations for *IS_REST* because we exclude fiscal year 2017 (total 444 observations) from the *IS_REST* model. There are 222 voluntary disclosure firms in fiscal year 2017 and 222 matched peers.

7. First, we present the means of variables used to create the matched sample for the *AC_EXIT* PSM model in Panel A of Table 7. Following the advice of Shipman et al. (2016), we provide the means comparison tests to demonstrate the match quality. As shown in Panel A of Table 7, the t-values indicate there are no significant differences in the means of variables for firms that disclose considerations in auditor reappointment (*VOLDISC=1*) and the matched peers (*VOLDISC=0*).[17]

Next, we re-estimate the regressions in Equation (2), and report the results in Panel B of Table 7. From Column A, *RESTANN* is positive and significantly associated with *AC_EXIT*. Most importantly, from Column B, the interaction variable, *RESTANN* × *VOLDISC* is negative and significantly ($p < 0.01$) associated with *AC_EXIT*. We demonstrate that the results on *RESTANN* and *RESTANN* × *VOLDISC* are quantitatively similar to those obtained in the primary analyses. Thus, audit committee disclosure of auditor reappointment factors significantly diminishes the positive association between egregious restatement announcement and audit committee director firings/resignations.

Finally, we re-estimate the regressions in Equation (3), and report the results in Panel C of Table 7. From Panel C, *VOLDISC* is negative and significantly ($p < 0.05$) associated with *IS_REST*, suggesting that the negative association between voluntary disclosure of auditor reappointment factors and the likelihood that the financial statements the auditor is reappointed to audit will be restated in future periods persists with a PSM sample.

>>> Insert Table 7 here>>>

Despite the advantages of PSM discussed above and our approach in constructing, evaluating the matches, and interpreting results, Shipman et al. (2016) stresses the need to supplement PSM with alternative designs because, among other things, the smaller PSM sample

[17] In untabulated results, we find no significant differences in the means of variables in the *IS_REST* PSM sample.

could affect generalizability of our findings. Further, a PSM approach does not address sample selection bias arising from omitted correlated variables. We employ a two-stage regression design to alleviate these concerns. In the first-stage we use a *VOLDISC* determinants model as in Equation (1). From this model, we then compute the predicted value of *VOLDISC*, *PREVOLDISC*. The variables that serve as our instruments in Equation (1) are whether the firm is a member of the S&P 500 (*IS_SP500*) and the ex post measure of the need to raise additional financing (*XFIN*). These variables serve as our instruments because, as shown in Table 4, these variables are significantly associated with *VOLDISC* but the prior research do not show potential linkages between these variables and *AC_EXIT* or *IS_REST*, and these variables are not subsequently employed in the *AC_EXIT* or *IS_REST* models.[18]

We employ *PREVOLDIC* as the independent variable in the second-stage regressions using *AC_EXIT* and *IS_REST* as the dependent measures. A significant *PREVOLDISC* will indicate that any bias arising from omitted variables that are correlated with voluntary disclosure of auditor reappointment factors is not a concern (Lennox et al., 2011).

We report the results of the two-stage regressions in Table 8. Columns A and B present the second-stage regression results for Equations (2) and (3), respectively. From Column A, the interaction variable, *RESTANN* × *PREVOLDISC* is negative and significantly ($p < 0.01$) associated with *AC_EXIT*, suggesting that voluntary disclosure of auditor reappointment factors reduces the positive association between egregious restatement announcement and audit committee member firing or resignation. Interestingly, the coefficient on *RESTANN* is no longer significant in the presence of the significant interaction term, suggesting that voluntary disclosure of auditor

[18] We note limitation in identifying sufficient instruments for the two-stage analyses in our setting because many of the determinants of audit committee disclosure of auditor reappointment factors are also predictors of audit committee departures and likelihood of restatement. While this is not unique to our study, the two instruments we identify and strong determinants of *VOLDISC*, but do not affect *AC_EXIT* or *IS_REST*.

reappointment factors significantly attenuates (or eliminates) the positive association between egregious restatement announcement and audit committee member firing or resignation. From Column B, the variable *PREVOLDISC* is negative and significantly ($p < 0.01$) associated with *IS_REST*, suggesting that voluntary disclosure of auditor reappointment factors reduces the likelihood that the financial statements the auditor is reappointed to audit will be restated in future periods. Collectively, the results support the findings in the primary analyses by demonstrating that omitted correlated variables are unlikely to have impacted the *AC_EXIT* and *IS_REST* results.

Taken together, the findings from the PSM and the two-stage analyses support the findings in the primary analyses by demonstrating that selection bias on observable and unobservable determinants of voluntary disclosure of considerations in auditor reappointment are unlikely to have impacted the *AC_EXIT* and *IS_REST* results.

>>> Insert Table 8 here>>>

Alternative variable measurement

We made several variable measurement decisions throughout the primary analyses. In this section, we consider alternative specifications of our primary variables of interest to provide comfort that our inferences are not driven by these choices.

Alternative measures of test variables in the determinants model (Equation 1)

In this section, we consider how alternative measures of perceived impaired audit quality and investor activism pressure affects likelihood of voluntary disclosure of considerations in auditor reappointment. First, we proxy for perceived impaired audit quality using the ratio of NAS fees to audit fees (*NAS_TO_AUD*), the natural log of total NAS fees (*LOGNAS*), and the dollar value of NAS fees (*$NAS*). We re-estimate Equation (1) for each of these modifications. The results (untabulated) are similar in sign and statistical significance for each of the above

modifications as those presented in the primary analysis. Finally, we specify investor activism against the board of directors using the natural log of the total number of activism communications directed to the board of directors during the fiscal year (*ACTVISM_SEV*). We re-estimate regressions for Equation (1). The results (untabulated) are consistent with our primary results and reinforce the conclusion that the level of investor activism directed to the board of directors increases the likelihood of voluntary disclosure of auditor reappointment factors.

Alternative measure of audit committee firing/resignation (Equation 2)

In the main analyses, we coded audit committee firing/resignation as equal 1 if at least one director on the audit committee gets fired or resigns from the board, and zero otherwise. In this section, we use a continuous measure for audit committee director firing/resignation, *logAC_EXIT*, which is the natural log of total number of audit committee directors who resign or get fired from the board.[19] We re-estimate Equation (2) and report the results in Panel B of Table 8. From Panel B of Table 8, the coefficients of *RESTANN*, *VOLDISC*, and *RESTANN*×*VOLDISC* on *logAC_EXIT* are consistent with those obtained in the main analyses.

Alternative measure of likelihood of restatement (Equation 3)

Burns and Kedia (2006) and Healy (1985) provide evidence that restatements affecting core earnings are more egregious and thus could be more embarrassing to the auditor. Therefore, using the details on financial restatements provided in the Audit Analytics database, we parse financial restatements affecting core earnings and noncore earnings to create an alternative dependent variable for Equation (3), *ISREST_CORE*, equals 1 if the annual financial statements the auditor is reappointed to audit are subsequently restated in future periods and if the restatement affects core earnings, and 0 otherwise. We re-estimate Equation (3) and report the results in Table

[19] The result is quantitatively similar if we measure audit committee departure as the number of audit committee directors who resign or get fired divided by audit committee size.

9. The coefficient on *VOLDISC* is negative and significantly ($p < 0.05$) associated with *IS_RESTCORE*, suggesting that the disclosure of considerations in auditor reappointment decreases the likelihood of a restatement affecting core earnings.

>>> Insert Table 9 here>>>

6. Conclusion

In response to investors' concerns about longer auditor tenure in U.S companies and the lack of audit committee transparency, some companies are voluntarily disclosing factors the audit committee considers when reappointing the external auditor. Investors and the CAD have welcomed these disclosures as a sign of audit committee vigilance in monitoring the external auditor. Critics however argue that audit committees may be making these disclosures to ward off investor and activist pressure.

We manually collect data on firms voluntarily disclosing auditor reappointment factors from fiscal year 2011 to 2017 to investigate whether the disclosures are indicative of audit committee substantive monitoring of the auditor or a mere exercise to create favorable impressions. We begin by investigating the determinants of these disclosures. In line with the 'favorable impression' argument, we posit that firms are more likely to disclose auditor reappointment factors when perceptions of impaired auditor independence are high and there is increasing threat to remove directors, including audit committee members, from the board. On the other hand, to the extent that the disclosures are indicative of effective audit committees' monitoring of the auditor, audit committee quality variables examined in the extant literature should be positively associated with the likelihood of voluntary disclosure of auditor reappointment factors.

We empirically examine these issues and find results suggesting that both 'favorable impression' and 'substantive monitoring' drive audit committee voluntary disclosure of auditor reappointment factors. Specifically, our evidence suggest that firms are more likely to disclose considerations in auditor reappointment when the level of non-audit services is high and when investor activists seek to remove or appoint new directors to the board. Our evidence also suggests that effective audit committees - those with more financial experts, composed of more directors, those with longer-tenured directors, and those with more female directors are more likely to make these disclosures.

To gain insights into which of the two motives (favorable impression versus vigilant monitoring) dominates, we examine how the disclosures affect audit committee director careers in periods of financial reporting failures. Our evidence suggests that these disclosures decrease the likelihood that audit committee directors will quit or be fired from the board in periods of financial reporting failures, suggesting that audit committee directors of firms that disclose considerations in auditor reappointment are less likely to be blamed for financial reporting failures. Finally, we investigate whether and how the disclosures affect the quality of the financial statements the auditor is reappointed to audit. Our empirical evidence suggests that voluntary disclosure of auditor reappointment factors decreases the likelihood that the financial statements the auditor is reappointed to audit will be restated in a future period. Overall, the consequences evidence suggests that voluntary disclosure of auditor reappointment factors is indicative of audit committee vigilant monitoring of the external auditor.

Our findings add to the small but burgeoning literature on audit committee voluntary disclosures, extend the limited prior studies on audit committee director turnover, and complement the literature on audit committee oversight. We offer a new perspective to the audit committee

voluntary disclosure literature by suggesting that firms use these disclosures to mitigate the risks associated with non-audit services and investor activism directed at the board of directors. Our findings highlight that audit committees can mitigate reputational risks and career concerns associated with financial reporting failures and that voluntary disclosures signal reduced likelihood of future financial reporting failures.

Notwithstanding potential limitations of our study including the manual nature of data collection and inherent limitations of our effort to address endogeneity, our study is also relevant to various stakeholders including the SEC, investors and others interested in audit committee transparency. We provide evidence that although some firms voluntarily disclose auditor reappointment factors to create favorable impressions, overall, these disclosures are more indicative of audit committee substantive monitoring of the external auditor. Our findings should be relevant to the SEC that has proposed mandating these disclosures.

References

Abbott, L. J., S. Parker, G. F. Peters, and K. Raghunandan. 2003. An empirical investigation of audit fees, non-audit fees, and audit committees. *Contemporary Accounting Research* 20 (2): 215-234.

Abbott, L. J., S. Parker, and G. F. Peters. 2004. Audit committee characteristics and restatements. *Auditing: A Journal of Practice & Theory* 23 (1): 69-87.

Agrawal, A., and S. Chadha. 2005. Corporate governance and accounting scandals. *The Journal of Law and Economics*, *48* (2): 371-406.

Alsadoun, N., Naiker, V., Navissi, F., & Sharma, D. S. (2018). Auditor-Provided Tax Nonaudit Services and the Implied Cost of Equity Capital. *Auditing: A Journal of Practice & Theory*, *37*(3), 1-24.Arthaud-Day, M. L., S. T. Certo, C. M. Dalton, and D. R. Dalton. 2006. A changing of the guard: Executive and director turnover following corporate financial restatements. *Academy of Management Journal* 49 (6): 1119-1136.

Ashbaugh, H., R. LaFond, and B. W. Mayhew. 2003. Do non-audit services compromise auditor independence? Further evidence. *The Accounting Review* 78 (3): 611-639.

Badertscher, B. A., J. J. Burks, and P. D. Easton. 2011. A convenient scapegoat: Fair value accounting by commercial banks during the financial crisis. *The Accounting Review* 87 (1): 59-90.

Bédard, J., S. M. Chtourou, and L. Courteau. 2004. The effect of audit committee expertise, independence, and activity on aggressive earnings management. *Auditing: A Journal of Practice & Theory*, 23: (2): 13-35.

Bedard, J. C., D. Falsetta, G. Krishnamoorthy, and T. C. Omer. 2010. Voluntary disclosure of auditor-provided tax service fees. *Journal of the American Taxation Association* 32 (1): 59-77.

Brandon, D. M., A. D. Crabtree, and J. J. Maher. 2004. Non-audit fees, auditor independence, and bond ratings. *Auditing: A Journal of Practice & Theory* 23 (2): 89-103.

Brandon, D. M., A. D. Crabtree, and J. J. Maher. 2004. Non-audit fees, auditor independence, and bond ratings. *Auditing: A Journal of Practice & Theory* 23 (2): 89-103.

Bratten, B., M. Causholli, and V. Sulcaj. 2019. Overseeing the external audit function: Evidence from audit committees' reported activities. Available at SSRN 3314334.

Burks, J. J. 2011. Are investors confused by restatements after Sarbanes-Oxley?. *The Accounting Review* 86 (2): 507-539.Burns, N., and S. Kedia. 2006. The impact of performance-based compensation on misreporting.*Journal of Financial Economics* 79 (1): 35-67.

Carcello, J.V., D.R. Hermanson, and T.L. Neal. 2002. Disclosures in audit committee charters and reports. *Accounting Horizons* 16 (4): 291-304.

Center for Audit Quality and Audit Analytics (CAQ and AA). 2016. 2016 Audit Committee Transparency Barometer. Available at: http://www.thecaq.org/2016-audit-committeetransparency-barometer

Chahine, S., and I. Filatotchev. 2011. The effects of corporate governance and audit and non-audit fees on IPO Value. *The British Accounting Review* 43 (3): 155-172.

Chen, S., X. I. A. Chen, and Q. Cheng. 2008. Do family firms provide more or less voluntary disclosure?. *Journal of Accounting Research* 46 (3): 499-536.

Clayton, R. 2013. Re: Please vote AGAINST the re-election of directors Thompson and Hammergren and AGAINST the ratification of Ernst & Young as the independent auditor. Accessed at

http://www.ctwinvestmentgroup.com/fileadmin/group_files/CtW_to_HP_Shareholders_Final_2-25-13.pdf
Cohen, J., Krishnamoorthy, G., & Wright, A. (2010). Corporate governance in the post-Sarbanes-Oxley era: Auditors' experiences. *Contemporary Accounting Research, 27*(3), 751-786.
Cohen, J. R., Hayes, C., Krishnamoorthy, G., Monroe, G. S., & Wright, A. M. (2012). The effectiveness of SOX regulation: An interview study of corporate directors. *Behavioral Research in Accounting*, *25*(1), 61-87.
Council of Institutional Investors (CII). 2013. Policies on corporate governance, Section 2.13. Available at: http://www.cii.org/corp_gov_policies#BOD.
DeFond, M. L., K. Raghunandan, and K. R. Subramanyam. 2002. Do non-audit service fees impair auditor independence? Evidence from going concern audit opinions. Journal of Accounting Research 40 (3): 1247-1274.
DeFond, M. L., R. N. Hann, and X. Hu. 2005. Does the market value financial expertise on audit committees of boards of directors?. *Journal of Accounting Research*, 43(2): 153-193.
DeFond, M. L., D. H. Erkens, and J. Zhang. 2016. Does PSM really eliminate the Big N audit quality effect?. *Marshall School of Business Working Paper No. ACC*, *2*.
DeHaan, E., F. Hodge, and T. Shevlin. 2013. Does voluntary adoption of a clawback provision improve financial reporting quality? *Contemporary Accounting Research* 30 (3): 1027-1062.
Denis, D. K. 2012. Mandatory clawback provisions, information disclosure, and the regulation of securities markets. *Journal of Accounting and Economics* 54 (2): 197-200.
Efendi, J., A. Srivastava, and E. P. Swanson. 2007. Why do corporate managers misstate Financial statements? The role of option compensation and other factors. *Journal of Financial Economics* 85 (3): 667-708.
Erickson M. (2017). A Century of Opinions: Companies with auditor tenue over 100 years. *Audit Analytics*. Accessed at https://blog.auditanalytics.com/a-century-of-opinions-companies-with-auditor-tenure-over-100-years/.
Farber, D. B. (2005). Restoring trust after fraud: Does corporate governance matter?. *The Accounting Review*, *80*(2), 539-561.
Farrell, K. A., and D. A. Whidbee. 2000. The consequences of forced CEO succession for outside directors. *The Journal of Business*, 73 (4): 597-627.
Fich, E. M., and A. Shivdasani. 2007. Financial fraud, director reputation, and shareholder wealth. *Journal of Financial Economics* 86 (2): 306-336.
Firth, M. 1997. The provision of non-audit services by accounting firms to their audit clients. *Contemporary Accounting Research* 14 (Summer): 1-21.
Francis, J. R, and B. Ke. 2006. Disclosure of fees paid to auditors and the market valuation of earnings surprises. *Review of Accounting Studies* 11 (4): 495-523.
Francis, J., D. Nanda, and P. Olsson. 2008. Voluntary disclosure, earnings quality, and cost of capital. *Journal of Accounting Research* 46 (1): 53-99.
Geiger, M. A., and D. V. Rama. 2003. Audit fees, non-audit fees, and auditor reporting on stressed companies. Auditing: A Journal of Practice & Theory 22 (2): 53-69.
Gilson, S. C. 1990. Bankruptcy, boards, banks, and blockholders: Evidence on changes in corporate ownership and control when firms default. *Journal of Financial Economics* 27 (2): 355-387.
Gow, I. D., S. P. Shin, and S. Srinivasan. 2014. Consequences to directors of shareholder activism. *Harvard Business School working paper series# 14-071*.

Hackenbrack, K. (2003). Mandatory disclosure and the joint sourcing of audit and management advisory services. working paper, University of Florida, Gainesville.Haimowitz, B. 2018. Does requiring firms to reveal audit engagement partners benefit investors? A novel experiment raises doubts As lengthy tenures with clients boost profits of the Big 4, new study questions effect of this on auditor independence. American Accounting Association. Accessed at http://aaahq.org/Outreach/Newsroom/Press-Releases/5-21-18-As-lengthy-tenures-with-clients-boost.

Healy, P. M., and K. G. Palepu. 2001. Information asymmetry, corporate disclosure, and the capital markets: A review of the empirical disclosure literature. *Journal of Accounting and Economics* 31(1-3): 405-440.Hermalin, B. E., and M. S. Weisbach. 1998. Endogenously chosen boards of directors and their monitoring of the CEO. *American Economic Review* 88 (1): 96-118.

Hoitash, U., R. Hoitash, and J. C. Bedard. 2009. Corporate governance and internal control over financial reporting: A comparison of regulatory regimes. *The accounting Review* 84 (3): 839-867.International Auditing and Assurance Standards Board (IAASB). Consultation paper, A framework for audit quality (January 15, 2013). Available at: http://www.ifac.org/publications-resources/framework-audit-quality

Iskandar-Datta, M., and Y. Jia. 2012. Valuation consequences of clawback provisions. *The Accounting Review* 88 (1): 171-198.

Karpoff, J. M., D. S. Lee, and G. S. Martin. 2008. The consequences to managers for financial misrepresentation. *Journal of Financial Economics* 88 (2): 193-215.

Karpoff, J. M., D. S. Lee, and G. S. Martin. 2008. The cost to firms of cooking the books. *Journal of Financial and Quantitative Analysis* 43 (3): 581-611.

Kennedy, P. 2008. *A guide to econometrics*. (6th ed.): Malden, MA: Blackwell Publishing.

Krishnan, J. 2005. Audit committee quality and internal control: An empirical analysis. *The Accounting Review* 80 (2): 649-675.

Krishnan, J., H. Sami, and Y. Zhang. 2005. Does the provision of non-audit services affect investor perceptions of auditor independence?. *Auditing: A Journal of Practice & Theory*, 24 (2): 111-135.

Mishra, S., Raghunandan, K., & Rama, D. V. (2005). Do investors' perceptions vary with types of nonaudit fees? Evidence from auditor ratification voting. *Auditing: A Journal of Practice & Theory*, *24*(2), 9-25.

Naiker, V., and D. S. Sharma. 2009. Former audit partners on the audit committee and internal control deficiencies. *The Accounting Review* 84 (2): 559-587.

Naiker, V., D. S. Sharma, and V. D. Sharma. 2013. Do former audit firm partners on audit committees procure greater non-audit services from the auditor?. *The Accounting Review* 88 (1): 297-326.

Omer, T. C., J. C. Bedard, and D. Falsetta. 2006. Auditor-provided tax services: The effects of a changing regulatory environment. *The Accounting Review* 81 (5): 1095-1117.

Pandit, G.M., V. Subrahmanyam and G.M. Conway. 2006. Are the audit committee reports disclosing enough after the Sarbanes-Oxley Act? A study of NYSE companies. *Managerial Auditing Journal* 21 (1): 34-45.

Parkash, M., and C. F. Venable. 1993. Auditee incentives for auditor independence: The case of non-audit services. *The Accounting Review* 68 (1): 113-133.

Public Company Accounting Oversight Board (PCAOB). 2004. Roundtable on Auditor Independence and Tax Services. https://pcaobus.org/Rulemaking/Docket017/2004-07-14_Roundtable_Transcript.pdf.

Raghunandan, K., W. J. Read, and J. S. Whisenant. 2003. Initial evidence on the association between non-audit fees and restated financial statements. *Accounting Horizons* 17 (3): 223-234.

Raghunandan, K., and D. V. Rama. 2003. Audit committee composition and shareholder actions: Evidence from voting on auditor ratification. *Auditing: A Journal of Practice & Theory* 22 (2): 253-263.

Rezaee Z., K. O. Olibe, G. Minmier. 2003. Improving corporate governance: the role of audit committee disclosures. *Managerial Auditing Journal* 18 (6/7): 530–537.

Rosenbaum, P. R., and D. B. Rubin. 1983. The central role of the propensity score in observational studies for causal effects. *Biometrika* 70 (1): 41-55.

Sarbanes-Oxley Act of 2002 (SOX). 2002. *Public Law No. 107–204*. Government Printing Office, Washington, DC. Securities and Exchange Commission. (2010). RIN 3235-AK28 proxy disclosure enhancements to 17 CFR parts 229, 239, 240, 249 and 274.' Available at: http://www.sec.gov/rules/final/2013/33-9089.pdf

Securities and Exchange Commission (SEC). 2015. SEC Concept Release: Possible revisions to audit committee disclosures, July 2015. Available at http://www.sec.gov/rules/concept/2015/33-9862.pdf.

Shibano, T. 1990. Assessing audit risk from errors and irregularities. *Journal of Accounting Research* 28: 110-140.

Shipman, J. E., Q. T. Swanquist, and R. L. Whited. 2016. Propensity score matching in accounting research. *The Accounting Review* 92 (1): 213-244.

Spence, M. 1973. Job market signaling. Quarterly Journal of Economics, 87: 355-374.

Srinidhi, B., F. A. Gul, and J. Tsui. 2011. Female directors and earnings quality. *Contemporary Accounting Research* 28 (5): 1610-1644.

Srinivasan, S. 2005. Consequences of financial reporting failure for outside directors: Evidence from accounting restatements and audit committee members. *Journal of Accounting Research* 43 (2): 291-334.

Suchman, M. C. 1995. Managing legitimacy: Strategic and institutional approaches. *Academy of Management Review* 20 (3): 571-610.

Williams, R. 2012. Using Stata's margins command to estimate and interpret adjusted predictions and marginal effects. *The Stata Journal* 12 (2): 308–331.

Yermack, David. 2004. "Remuneration, retention, and reputation incentives for outside directors." *The Journal of Finance* 59 (5): 2281-2308.

Zhang, Y., J. Zhou, and N. Zhou. 2007. Audit committee quality, auditor independence, and internal control weaknesses. *Journal of Accounting and Public Policy* 26 (3): 300-327.

Appendix A

Search criteria and examples of voluntary disclosure of auditor reappointment factors

Panel A: SeekInf Search Strings

PROXIMITY: audit committee considered+whether to retainwithin 20
PROXIMITY: audit committee considered+whether to appointwithin 10
PROXIMITY: audit committee considered+whether to reappointwithin 10
PROXIMITY: audit committee considered+whether to re-appointwithin 10
PROXIMITY: audit committee considered+whether to engagewithin 10
PROXIMITY: audit committee took+whether to retainwithin 30
PROXIMITY: audit committee took+whether to reappointwithin 20
PROXIMITY: audit committee took+whether to engagewithin 30
PROXIMITY: audit committee considers+whether to retainwithin 20
PROXIMITY: audit committee considers+whether to appointwithin 20
PROXIMITY: audit committee considers+whether to engagewithin 20
PROXIMITY: audit committee considers+whether to re-engagewithin 20
PROXIMITY: audit committee considers+whether to reengagewithin 20
PROXIMITY: audit committee evaluates+whether to retainwithin 20
PROXIMITY: audit committee evaluates+whether to engagewithin 20
PROXIMITY: audit committee evaluates+whether to reengagewithin 20
PROXIMITY: considered by the audit committee+whether to retainwithin 20
PROXIMITY: audit committee annually reviews+whether to engagewithin 20
PROXIMITY: audit committee has selected+committee consideredwithin 20
PROXIMITY: determining whether to reappoint+audit committee took intowithin 20
PROXIMITY: in selecting+audit committee consideredwithin 20
PROXIMITY: in retaining+audit committee consideredwithin 20
PROXIMITY: based on this evaluation+audit committeewithin 30
PROXIMITY: based on these evaluations+audit committeewithin 2
PROXIMITY: course of these reviews+audit committeewithin 2
PROXIMITY: in conducting this annual evaluation+audit committeewithin 20
PROXIMITY: in conducting its latest review of+audit committeewithin 20
EXACT: determining whether to reappoint
EXACT: the overall scope and plans of its audits
EXACT: In doing so, the Audit Committee considers
EXACT: In doing so, the Audit and Finance Committee considers
EXACT: In doing so, the Audit Committee considered
EXACT: audit committee took into consideration+(whether to retain|whether to reappoint|whether to reengage|whether to appoint|whether to engage)
EXACT: prior to retaining+audit committee evaluated
EXACT: in conducting this annual evaluation
EXACT: In taking this action+(audit committee considered|audit committee reviews|audit committee took into consideration|audit committee assessed)
EXACT: audit committee considered the accounting firm
EXACT: audit committee considered a number of factors
EXACT: audit committee considered carefully
EXACT: audit committee carefully considered
EXACT: audit committee took into consideration a number of factors
EXACT: audit committee assessed
EXACT: before appointing
EXACT: audit committee evaluated the performance
EXACT: based on these considerations
EXACT: audit committee evaluated the selection

Appendix A (continued)

Panel B: Examples of audit committee disclosure of auditor reappointment factors

Part I: Vertex Pharmaceuticals, Inc. (NASDAQ: VRTX) – 2012 Proxy Statement
Ernst & Young LLP has been our independent registered public accounting firm since 2005. A new lead audit partner is designated at least every five years to provide a fresh perspective and a new lead audit partner was designated for the 2010 audit. In determining whether to reappoint our independent registered public accounting firm, our audit and finance committee considers the quality of its discussions with and the performance of the lead audit partner, the audit team assigned to our account and the overall strength and reputation of the firm.

Part II: Walgreens Boot Alliance, Inc. (NASDAQ: WBA) – 2016 Proxy Statement
At least annually, the Audit Committee reviews the Company's independent registered public accounting firm to decide whether to retain such firm on behalf of the Company. Deloitte has been the Company's independent registered public accounting firm (including its predecessor Walgreens) since May 2002. When conducting its latest review of Deloitte, the Audit Committee actively engaged with Deloitte's engagement partners and senior leadership where appropriate and considered, among other factors:

- the professional qualifications of Deloitte and that of the lead audit partner and other key engagement partners relative to the current and ongoing needs of the Company;
- Deloitte's historical and recent performance on the Company's audits, including the extent and quality of Deloitte's communications with the Audit Committee related thereto;
- the appropriateness of Deloitte's fees relative to both efficiency and audit quality;
- Deloitte's independence policies and processes for maintaining its independence;
- Deloitte's tenure as the Company's independent registered public accounting firm and its related depth of understanding of the Company's businesses, operations and systems and the Company's accounting policies and practices;
- Deloitte's capability, expertise and efficiency in handling the breadth and complexity of the Company's operations across the globe;
- Deloitte's demonstrated professional integrity and objectivity, which is furthered by the Audit Committee-led process to rotate and select the lead audit partner and other key engagement partners at least every five years or as otherwise required by applicable law or regulation, and which was done most recently in 2016; and
- the relative benefits, challenges, overall advisability and potential impact of selecting a different independent public accounting firm.

Appendix B

Variable definitions

Variable name		Measurement (data source)
Panel A*:* Dependent variables used in the main analyses		
VOLDISC	=	1 if the proxy statement discloses audit committee considerations in reappointing the incumbent auditor for the coming fiscal year, and 0 otherwise (SEEKINF).
AC_EXIT	=	1 if at least one audit committee director gets fired or resigns from the board within 12 months of a non-reliance restatement announcement, and 0 otherwise (AUDIT ANALYTICS).
IS_REST	=	1 if the audited financial statements in the period following the disclosure of considerations in auditor reappointment are restated in future periods, and 0 otherwise (AUDIT ANALYTICS).
Panel B: Dependent variables used in the additional analyses		
IS_RESTCORE	=	1 if the audited financial statements in the period following the disclosure of considerations in auditor reappointment are subsequently restated and if the restatement has negative consequences on previously reported core earnings, and 0 otherwise (AUDIT ANALYTICS).
logAC_EXIT	=	Log of the number of audit committee director firings or resignations from the board within 12 months of non-reliance restatement announcement.
Panel C*:* Test variables used in the main analyses		
NASRATIO	=	Ratio of total non-audit fees to total fees (audit and non-audit) paid to the auditor during the fiscal year just (AUDIT ANALYTICS).
ACTIVISM	=	1 if the firm received activism communication that seeks to remove or nominate directors to the firm's board of directors or a committee of the firm's board of directors during the 12 months preceding the proxy filling date, and 0 otherwise (CAPITAL IQ).
ACEXPRT	=	Number of audit committee directors who are financial experts divided by total number of audit committee directors (BOARDEX).
ACSIZE	=	Log of the number of members serving on the audit committee (BOARDEX).
ACTEN	=	Log of average tenure of all audit committee directors on a firm's board (BOARDEX).
ACSOSCAP	=	Audit committee social capital is the average of number of directorships held by audit committee directors on the board (BOARDEX).
ACWOM	=	The percentage of female directors on a firm's audit committee (BOARDEX).
RESTANN	=	1 if a firm announces an Item 4.02 non-reliance of previously issued financial statements in the current fiscal year with negative impact on previously issued financial statements, and 0 otherwise (AUDIT ANALYTICS).
VOLDISC	=	As defined above.
RESTANN×*VOLDISC*	=	Interaction of *RESTANN* and *VOLDISC*.

Appendix B (continued)

Panel D*:* Test variables used in the additional analyses		
PREVOLDISC	=	Predicted value of *VOLDISC*, estimated from the first-stage regression of *VOLDISC* on a set of determinants as denoted by Equation (1).
NAS_TO_AUD	=	Ratio of total non-audit fees to total audit fees paid to the auditor during the fiscal year (AUDIT ANALYTICS).
LOGNAS	=	Log of total non-audit fees paid to the auditor during the fiscal year (AUDIT ANALYTICS).
$NAS	=	Dollar value of total non-audit fees paid to the auditor during the fiscal year (AUDIT ANALYTICS).
ACTIVISM_SEV	=	Log of the total number of activism communications that seeks to remove or nominate directors to the firm's board of directors or a committee of the firm's board of directors during the 12 months preceding the proxy filling date (CAPITAL IQ).
Panel E: Control variables used in the main analyses		
ASSETS	=	Log of total assets (COMPUSTAT).
GROWTH		Growth in sales over the previous year (COMPUSTAT).
LEV	=	Total debt divided by market value of assets (COMPUSTAT).
LOSS	=	1 if the firm reports net income below zero in the fiscal year, and 0 otherwise (COMPUSTAT).
LIT	=	1 if the firm operates in litigious industry (four digit SICs 2833-2836; 3570-3577; 3600-3674; 5200-6951; 7370), and 0 otherwise (COMPUSTAT).
ROA	=	Return on assets (COMPUSTAT).
XFIN	=	Sum of additional cash raised in year t from long-term debt issuance + sale of common and preferred stock - purchase of common and preferred stock – cash dividends - long-term debt reduction + current debt changes , all scaled by total assets (COMPUSTAT).
BIG4	=	1 if the firm's external auditor is a Big 4 auditor, and 0 otherwise (AUDIT ANALYTICS).
ICW	=	1 if the firm's auditor reported material weakness in internal controls over financial reporting, and 0 otherwise (AUDIT ANALYTICS).
BIND	=	The percentage of directors on the firm's board who are independent (BOARDEX).
INSTOWN	=	Percentage of outstanding shares held by institutional investors
ACAGE	=	Log of average age of all audit committee directors on a firm's board (BOARDEX).
RESTR	=	1 if the firm has undergone restructuring activities, and 0 otherwise (COMPUSTAT).
CEOTURN	=	1 if the CEO is dismissed or resigns from the position during the fiscal year, and 0 otherwise (BOARDEX).
NEWCEO	=	1 if the CEO time in the role is 12 months or less, and 0 otherwise (BOARDEX).
FOROPS	=	1 if the firm has foreign operations, and 0 otherwise (COMPSUTAT).
MERGER	=	1 if the firm reports merger or acquisition, and 0 otherwise (COMPSUTAT).
AUFEE	=	Log of total non-audit service fees (AUDIT ANALYTICS).

TABLE 1
Sample selection and industry membership

Panel A: Sample Selection

	Observation
Non-financial firms with available financial data in the Compustat database from fiscal year 2011 to 2017	23,172
Less observations with missing data in Audit Analytics	(2,688)
Less observations with missing corporate governance data in BoardEx	(7,326)
Primary Sample	**13,158**

Panel B: Number of voluntary disclosure of considerations in auditor reappointment

Year	Total number of firms	Number of firms that do not disclose considerations in auditor reappointment	Number of firms with voluntary disclosure of considerations in auditor reappointment	Percentage firms making disclosures
2011	1,913	1,886	27	1.41%
2012	1,839	1,793	46	2.50%
2013	2,016	1,955	61	3.03%
2014	1,988	1,901	87	4.38%
2015	1,894	1,740	154	8.13%
2016	1,774	1,600	174	9.81%
2017	1,734	1512	222	12.80%
Total	13,158	12,387	771	5.86%

Panel C: Industry membership of firms in the primary sample

Industry Name	**Frequency**	**Percentage**	**Compustat Population**
Consumer non-durables	768	5.84%	4.65%
Consumer durables	416	3.16%	2.63%
Manufacturing	1,599	12.15%	8.61%
Oil, gas, and coal extraction and products	783	5.95%	7.29%
Chemicals and Allied Products	470	3.57%	2.57%
Business equipment	2,873	21.83%	18.84%
Telephone and television transmission	337	2.56%	3.03%
Utilities	511	3.88%	4.72%
Wholesale, retail, and some services	1,457	11.07%	8.24%
Healthcare, medical equipment, and drugs	1,929	14.66%	16.92%
	11,143	84.69%	77.49%
All others	2,015	15.31%	22.51%
Total Sample	13,158	100.00%	100.00%

TABLE 2

Descriptive statistics and univariate tests

Panel A: Descriptive statistics

Variable	N	Mean	Std	1st Quartile	Median	3rd Quartile
VOLDISC	13,158	0.059	0.235	0.000	0.000	0.000
NAS fees_unadj ($)	13,158	652,492	2,097,988	18,800	119,091	499,198
NASRATIO	13,158	0.141	0.136	0.029	0.106	0.217
ACTIVISM	13,158	0.057	0.231	0.000	0.000	0.000
ACEXPRT	13,158	0.521	0.286	0.333	0.500	0.750
ACSIZE	13,158	1.639	0.253	1.386	1.609	1.792
ACTEN	13,158	2.087	0.485	1.848	2.109	2.405
ACSOSCAP	13,158	0.982	0.215	0.847	0.916	1.099
ACWOM	13,158	0.121	0.115	0.000	0.121	0.200
AC_EXIT	13,158	0.024	0.155	0.000	0.000	0.000
IS_REST	11,424	0.077	0.265	0.000	0.000	0.000
RESTANN	13,158	0.063	0.244	0.000	0.000	0.000
ASSETS	13,158	6.605	2.325	5.033	6.733	8.254
GROWTH	13,158	0.119	0.662	–0.039	0.045	0.144
LEV	13,158	0.238	0.381	0.016	0.147	0.329
LOSS	13,158	0.399	0.490	0.000	0.000	1.000
LIT	13,158	0.282	0.450	0.000	0.000	1.000
ROA	13,158	–0.093	0.738	–0.032	0.034	0.074
XFIN	13,158	0.046	0.311	–0.054	–0.009	0.040
SP500	13,158	0.166	0.372	0.000	0.000	0.000
BIGN	13,158	0.723	0.447	0.000	1.000	1.000
ICW	13,158	0.065	0.247	0.000	0.000	0.000
BIND	13,158	0.950	0.088	0.931	1.000	1.000
INSTOWN	13,158	0.621	0.325	0.479	0.651	0.830
ACAGE	13,158	4.190	0.084	4.148	4.193	4.241
RESTR	13,158	0.354	0.478	0.000	0.000	1.000
CEOTURN	13,158	0.105	0.307	0.000	0.000	0.000
NEWCEO	13,158	0.118	0.323	0.000	0.000	0.000
FOROPS	13,158	0.358	0.479	0.000	0.000	1.000
MERGER	13,158	0.336	0.472	0.000	0.000	1.000
AUFEE	13,158	13.901	1.368	13.048	13.993	14.812

TABLE 2 (continued)

Panel B: Univariate test – Variables in the determinants analyses

	(A)		(B)		(C)
	***VOLDISC* = 1**		***VOLDISC* = 0**		**Difference**
	(n = 771)		**(n = 12,387)**		**Mean (B) vs (A)**
Variable	Mean	Median	Mean	Median	Statistic[#]
NASRATIO	0.186	0.152	0.139	0.103	9.350***
ACTIVISM	0.104	0.000	0.054	0.000	5.811***
ACEXPRT	0.609	0.600	0.515	0.429	8.877***
ACSIZE	1.705	1.609	1.635	1.609	7.495***
ACTEN	2.134	2.156	2.084	2.111	2.748***
ACSOSCAP	1.023	0.981	0.979	0.916	5.527***
ACWOM	0.187	0.182	0.117	0.120	16.521***
ASSETS	8.078	8.174	6.513	6.640	18.370***
GROWTH	0.065	0.030	0.123	0.046	2.348***
LEV	0.238	0.191	0.238	0.143	0.024
LOSS	0.358	0.000	0.402	0.000	2.415***
LIT	0.271	0.000	0.282	0.000	0.668
ROA	0.008	0.042	–0.099	0.033	3.900***
XFIN	–0.008	–0.025	0.049	–0.008	4.964***
BIGN	0.879	1.000	0.713	1.000	9.989***
SP500	0.405	0.405	0.151	0.358	18.414***
ICW	0.014	0.000	0.069	0.000	5.916***
BIND	0.927	0.971	0.952	1.000	7.503***
INSTOWN	0.701	0.739	0.616	0.643	9.896***

Panel C: Univariate test – Variables in the audit committee director turnover analyses

	(A)		(B)		(C)
	***AC_EXIT* = 1**		***AC_EXIT*= 0**		**Difference**
	(n = 322)		**(n = 12,836)**		**Mean (B) vs (A)**
Variable	Mean	Median	Mean	Median	Statistic[#]
VOLDISC	0.031	0.000	0.059	0.000	2.130**
RESTANN	0.121	0.000	0.062	0.000	4.137***
ACTIVISM	0.152	0.000	0.054	0.000	7.490***
ACEXPRT	0.472	0.445	0.522	0.500	3.079***
ACSIZE	1.714	1.792	1.637	1.609	5.420***
ACTEN	1.753	1.695	2.096	2.116	12.615***
ACSOSCAP	1.016	0.968	0.981	0.916	2.924***
ACWOM	0.097	0.091	0.122	0.120	3.892***
ASSETS	5.859	5.866	6.623	6.759	5.832***
GROWTH	0.133	0.014	0.119	0.045	0.369
LEV	0.275	0.141	0.237	0.147	1.737**
LIT	0.311	0.000	0.281	0.000	1.777**
ROA	–0.286	–0.008	–0.088	0.034	4.754***
ICW	0.124	0.000	0.064	0.000	4.327***
INSTOWN	0.635	0.621	0.620	0.654	0.785
ACAGE	4.175	4.165	4.189	4.193	3.016***
RESTR	0.379	0.000	0.354	0.000	0.931
CEOTURN	0.230	0.000	0.102	0.000	7.367***
NEWCEO	0.255	0.000	0.115	0.000	7.694***

TABLE 2 (continued)

Panel D: Univariate test – Variables in the likelihood of financial restatement analyses

	(A)		(B)		(C)
	***IS_REST* = 1 (n = 874)**		***IS_REST*= 0 (n = 10,550)**		**Difference Mean (B) vs (A)**
Variable	Mean	Median	Mean	Median	Statistic[#]
VOLDISC	0.026	0.000	0.050	0.000	3.260***
RESTANN	0.163	0.000	0.056	0.000	12.604***
ACEXPRT	0.479	0.400	0.518	0.460	4.035***
ACSIZE	1.608	1.609	1.643	1.609	3.992***
ASSETS	6.441	6.806	6.515	6.602	0.931
GROWTH	0.152	0.049	0.117	0.043	1.494*
LEV	0.320	0.214	0.232	0.139	6.615***
LOSS	0.359	0.000	0.406	0.000	2.797**
ROA	–0.124	0.024	–0.101	0.033	0.859
BIGN	0.718	1.000	0.714	1.000	0.270
ICW	0.168	0.000	0.059	0.000	12.649***
BIND	0.949	1.000	0.958	1.000	3.065***
INSTOWN	0.627	0.636	0.607	0.632	1.835*
RESTR	0.388	0.000	0.342	0.000	2.860**
FOROPS	0.354	0.000	0.355	0.000	0.113
MERGER	0.362	0.000	0.325	0.000	2.317**
AUFEE	13.838	13.960	13.843	13.931	0.096

This Table presents the descriptive statistics (Panel A) and univariate test of means of variables in the determinants (Panel B), audit committee director turnover (Panel C), and financial restatement (Panel D) analyses. *, **, *** denote significance at the 0.10, 0.05, and 0.01 levels, respectively. # The test statistic represents mean difference t test for continuous variables and proportion test z statistic for indicator variables. Median difference tests yield similar inferences. All variables are defined in Appendix B.

TABLE 3
Pairwise correlations

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)
(1) *VOLDISC*	1.00																													
(2) *NASRATIO*	**0.08**	1.00																												
(3) *ACTIVISM*	**0.05**	0.00	1.00																											
(4) *ACEXPRT*	**0.08**	**0.04**	0.01	1.00																										
(5) *ACSIZE*	**0.07**	**0.07**	**0.06**	**0.03**	1.00																									
(6) *ACTEN*	**0.02**	**-0.02**	**-0.04**	**0.03**	**-0.08**	1.00																								
(7) *ACSOSCAP*	**0.05**	**0.09**	0.00	**0.13**	**0.19**	**-0.10**	1.00																							
(8) *ACWOM*	**0.14**	**0.08**	**0.03**	**0.11**	**0.16**	0.00	**0.14**	1.00																						
(9) *AC_FIRED*	**-0.02**	-0.01	**0.07**	**-0.03**	**0.05**	**-0.11**	**0.03**	**-0.03**	1.00																					
(10) *IS_REST*	**-0.03**	0.02	0.00	**-0.04**	**-0.04**	**-0.03**	**-0.02**	**-0.03**	-0.01	1.00																				
(11) *RESTANN*	0.00	0.02	**0.02**	0.00	0.01	**-0.02**	0.00	0.01	**0.04**	**0.12**	1.00																			
(12) *ASSETS*	**0.16**	**0.19**	0.01	**0.20**	**0.36**	**0.11**	**0.34**	**0.30**	**-0.05**	-0.01	**0.03**	1.00																		
(13) *GROWTH*	**-0.02**	**0.02**	**-0.03**	**-0.03**	**-0.06**	**-0.08**	0.01	**-0.04**	0.00	0.01	-0.01	**-0.07**	1.00																	
(14) *LEV*	0.00	**-0.02**	0.00	0.01	-0.01	**-0.04**	0.02	0.00	0.02	**0.06**	**0.05**	**0.06**	**-0.04**	1.00																
(15) *LOSS*	**-0.02**	**-0.02**	-0.01	**-0.04**	**-0.02**	**-0.05**	0.00	-0.02	0.02	**-0.03**	0.00	**-0.02**	**0.04**	0.00	1.00															
(16) *LIT*	-0.01	0.00	0.02	**-0.02**	**-0.09**	**-0.10**	0.01	0.00	0.01	-0.01	-0.02	**-0.16**	**0.07**	**-0.13**	**0.03**	1.00														
(17) *ROA*	**0.03**	**0.07**	0.01	**0.05**	**0.17**	**0.08**	**0.03**	**0.05**	**-0.04**	-0.01	0.00	**0.35**	**-0.05**	**-0.15**	**-0.03**	**-0.09**	1.00													
(18) *XFIN*	**-0.04**	**-0.06**	**-0.03**	**-0.05**	**-0.16**	**-0.13**	**-0.02**	**-0.07**	**0.05**	-0.01	-0.01	**-0.34**	**0.12**	**0.08**	**0.04**	**0.12**	**-0.75**	1.00												
(19) *SP500*	**0.16**	**0.16**	0.01	**0.13**	**0.21**	**0.07**	**0.25**	**0.26**	**-0.04**	**-0.04**	**-0.02**	**0.57**	**-0.04**	**-0.03**	**-0.04**	**-0.05**	**0.10**	**-0.12**	1.00											
(20) *BIGN*	**0.09**	**0.15**	-0.01	**0.15**	**0.26**	**0.06**	**0.31**	**0.23**	**-0.04**	0.00	**0.05**	**0.62**	**-0.05**	**-0.03**	0.00	**-0.03**	**0.20**	**-0.20**	**0.27**	1.00										
(21) *ICWEAK*	**-0.05**	**-0.06**	**0.03**	**-0.05**	**-0.09**	**-0.07**	**-0.07**	**-0.04**	**0.04**	**0.12**	**0.16**	**-0.21**	**0.04**	**0.09**	0.00	**0.03**	**-0.22**	**0.17**	**-0.10**	**-0.16**	1.00									
(22) *BIND*	**-0.07**	-0.01	**-0.02**	**-0.03**	**0.18**	**-0.12**	**0.06**	**-0.06**	**0.02**	**-0.03**	**-0.02**	**-0.10**	0.01	**-0.02**	**0.05**	**0.03**	**0.02**	**0.02**	**-0.07**	**-0.05**	-0.02	1.00								
(23) *INSTOWN*	**0.06**	**0.08**	0.00	**0.13**	**0.11**	**0.11**	**0.15**	**0.15**	0.01	0.02	0.01	**0.35**	-0.01	**-0.02**	0.00	**-0.02**	**0.07**	**-0.08**	**0.16**	**0.32**	**-0.06**	**-0.07**	1.00							
(24) *ACAGE*	**-0.02**	-0.01	**-0.04**	-0.01	0.00	**0.30**	**0.05**	**-0.09**	**-0.03**	0.00	**-0.02**	**0.07**	**-0.02**	**-0.03**	-0.01	**-0.07**	**0.05**	**-0.05**	0.01	**0.03**	**-0.06**	0.00	0.00	1.00						
(25) *RESTR*	**0.09**	**0.09**	**0.07**	**0.11**	**0.18**	-0.01	**0.15**	**0.14**	0.01	**0.03**	**0.06**	**0.28**	**-0.09**	**0.04**	**-0.03**	**-0.03**	**0.08**	**-0.13**	**0.13**	**0.24**	**-0.04**	-0.02	**0.17**	**-0.02**	1.00					
(26) *CEOTURN*	0.00	0.00	**0.09**	0.01	**0.06**	**-0.07**	0.01	**0.02**	**0.06**	**0.02**	**0.03**	0.00	**-0.03**	**0.03**	-0.01	0.01	**-0.02**	-0.01	0.01	0.00	**0.05**	**-0.06**	0.00	**-0.06**	**0.10**	1.00				
(27) *NEWCEO*	-0.01	0.00	**0.08**	0.00	**0.06**	**-0.07**	**0.02**	0.01	**0.07**	**0.02**	**0.02**	0.00	**-0.02**	**0.04**	0.00	**0.02**	**-0.03**	0.00	0.01	-0.01	**0.04**	**-0.05**	-0.01	**-0.05**	**0.10**	**0.84**	1.00			
(28) *FOROPS*	**0.02**	**0.06**	**0.02**	0.00	**0.07**	0.00	**0.13**	0.00	-0.01	0.00	0.01	**0.15**	**-0.03**	**-0.08**	0.00	**-0.03**	**0.07**	**-0.08**	**0.05**	**0.14**	0.00	0.00	**0.09**	0.00	**0.21**	0.01	0.01	1.00		
(29) *MERGER*	**0.04**	**0.13**	-0.01	**0.08**	**0.07**	0.01	**0.05**	**0.05**	-0.01	**0.02**	**0.03**	**0.24**	**0.03**	-0.01	0.01	**-0.05**	**0.10**	**-0.05**	**0.08**	**0.18**	**-0.02**	-0.01	**0.16**	0.01	**0.22**	**-0.02**	**-0.02**	**0.11**	1.00	
(30) *AUFEE*	**0.16**	**0.11**	**0.04**	**0.21**	**0.36**	**0.07**	**0.35**	**0.30**	**-0.03**	0.00	**0.05**	**0.88**	**-0.08**	**0.04**	-0.02	**-0.12**	**0.27**	**-0.27**	**0.51**	**0.64**	**-0.15**	**-0.08**	**0.35**	**0.05**	**0.38**	**0.03**	**0.03**	**0.24**	**0.27**	1.00

* Bold correlations are significant at $p < 0.05$. See Appendix B for definition of variables

TABLE 4
Audit committee disclosure of auditor reappointment factors, auditor independence, investor activism, and audit committee quality.

Dependent variable:		*VOLDISC*	
Variable	**Pred. Sign**	**Coeff.**	**z-value**
Intercept	?	–6.306***	–10.49
NASRATIO **(H1)**	+	1.651***	6.10
ACTIVISM **(H2)**	+	0.515***	3.69
ACEXPRT **(H3)**	+	0.518***	3.89
ACSIZE **(H3)**	+	0.441***	2.52
ACTEN **(H3)**	+	0.160**	1.91
ACSOSCAP **(H3)**	+	0.109	0.55
ACWOM **(H3)**	+	1.915***	5.92
ASSETS	+	0.124***	3.93
GROWTH	?	–0.080	–0.72
LEV	?	0.023	0.24
LOSS	?	–0.089	–1.10
LIT	+	0.197**	1.69
ROA	?	–0.099	–0.98
XFIN	-	–0.372*	–1.46
SP500	+	0.401***	3.60
BIGN	+	0.004	0.03
ICW	?	–1.192***	–3.73
BIND	+	–0.840**	–1.85
INSTOWN	+	0.116*	1.46
Year FE		Included	
Industry FE		Included	
Observations		13,158	
Wald Chi^2		726.38***	
Pseudo R^2		0.151	

This table presents logistic regression results of the effect of perceived impaired audit quality (*NASRATIO*), investor activism directed at board of directors (*ACTIVISM*), and audit committee quality (*ACEXPRT*, *ACSIZE*, *ACTEN*, *ACSOSCAP*, *ACWOM*) on the likelihood of disclosing auditor reappointment factors *, **, *** denote significance at the 0.10, 0.05, and 0.01 levels, respectively, based on the Huber-White sandwich estimate of variances. Significance is based on p-values that are one-tailed for variables with a predicted sign, and two-tailed otherwise. See Appendix B for variable definitions.

TABLE 5
Audit committee turnover, non-reliance restatements, and the disclosure of auditor reappointment factors.

		(A)		(B)	
Dependent variables:		*AC_EXIT*		*AC_EXIT*	
Variable	**Pred. Sign**	**Coeff.**	**z-value**	**Coeff.**	**z-value**
Intercept	?	–7.679	–2.37**	–7.620**	–2.36
RESTANN	+	0.619***	3.46	0.616***	3.45
VOLDISC	?			–0.571*	–1.67
RESTANN×*VOLDISC* **(H4)**	?			–3.192***	–3.19
ACTIVISM	+	0.775***	4.59	0.786***	4.65
ACEXPRT	-	–0.427**	–1.93	–0.413**	–1.87
ACSIZE	+	1.213***	5.36	1.223***	5.38
ACTEN	?	–0.938***	–8.68	–0.931***	–8.61
ACSOSCAP	+	0.847***	2.69	0.847***	2.69
ACWOM	-	–1.876***	–3.11	–1.812***	–3.00
ASSETS	?	–0.161***	–4.40	–0.158***	–4.29
GROWTH	-	–0.026	–0.38	–0.027	–0.39
LEV	?	0.090	0.81	0.088	0.79
LIT	+	0.163	0.99	0.163	0.99
ROA	-	–0.082**	–1.83	–0.084**	–1.86
ICW	+	0.169	0.88	0.157	0.81
INSTOWN	+	0.389***	4.24	0.383***	4.28
ACAGE	+	0.785	1.01	0.759	0.98
RESTR	+	0.074	0.55	0.073	0.54
CEOTURN	+	0.255	0.95	0.251	0.94
NEWCEO	+	0.433**	1.66	0.435**	1.67
Year FE		Included		Included	
Industry FE		Included		Included	
Observations		13,158		13,158	
Wald Chi^2		359.54***		368.48***	
Pseudo R^2		0.105		0.106	

This table presents logistic regression results of the effect of voluntary disclosure of auditor reappointment factors on the likelihood of audit committee director firing/ resignation following the announcement of non-reliance of previously issued financial statement. *, **, *** denote significance at the 0.10, 0.05, and 0.01 levels, respectively, based on the Huber-White sandwich estimate of variances. Significance is based on p-values that are one-tailed for variables with a predicted sign, and two-tailed otherwise. See Appendix B for variable definitions.

TABLE 6
Non-reliance restatements and the disclosure of auditor reappointment factors.

Dependent variable:		*IS_REST*	
Variable	**Pred. Sign**	**Coeff.**	**z-value**
Intercept	?	–0.717	–0.97
VOLDISC **(H5)**	?	–0.411**	–1.99
RESTANN	+	0.928***	8.28
ACEXPRT	-	–0.534***	–3.93
ACSIZE	-	–0.568***	–3.31
ASSETS	?	0.010	0.27
GROWTH	?	0.061	1.35
LEV	+	0.250***	3.70
LOSS	?	–0.208***	–2.81
ROA	?	0.083*	1.71
BIGN	?	0.055	0.52
ICW	+	1.027***	8.62
BIND	-	–1.142***	–2.79
INSTOWN	?	0.141*	1.74
RESTR	+	0.216***	2.58
FOROPS	+	–0.004	–0.05
MERGER	+	0.193***	2.44
AUFEE	?	0.033	0.56
Year FE		Included	
Industry FE		Included	
Observations		11,424	
Wald Chi^2		592.06***	
Pseudo R^2		0.085	
Number of restatements		874	

This table reports regression results of the effect of voluntary disclosure of considerations in auditor reappointment on the likelihood that the financial statements the auditor is reappointed to audit will be restated in future periods. *, **, *** denote significance at the 0.10, 0.05, and 0.01 levels, respectively, based on the Huber-White sandwich estimate of variances. Significance is based on p-values that are one-tailed for variables with a predicted sign, and two-tailed otherwise. See Appendix B for variable definitions.

TABLE 7
Propensity-score matching

Panel A: Mean comparison of voluntary disclosure firms and non-disclosure firms matched on propensity scores.

	(A) *VOLDISC* = 1 (n = 771)		(B) *VOLDISC* = 0 (n = 771)		(C) Difference (A) vs (B)
	Mean	Median	Mean	Median	Statistic[#]
NASRATIO	0.186	0.152	0.184	0.155	0.289
ACTIVISM	0.104	0.000	0.119	0.000	0.971
ACEXPRT	0.609	0.600	0.609	0.600	0.015
ACSIZE	1.705	1.609	1.716	1.609	0.904
ACTEN	2.134	2.156	2.117	2.152	0.826
ACSOSCAP	1.023	0.981	1.030	0.981	1.214
ACWOM	0.187	0.182	0.183	0.179	0.205
ASSETS	8.078	8.174	7.983	8.135	0.898
GROWTH	0.065	0.030	0.052	0.044	0.682
LEV	0.238	0.191	0.225	0.170	1.094
LOSS	0.358	0.000	0.336	0.000	0.910
LIT	0.271	0.000	0.309	0.000	1.427
ROA	0.008	0.042	-0.019	0.045	1.152
XFIN	-0.008	-0.025	-0.013	-0.024	0.675
SP500	0.405	0.405	0.439	0.208	0.887
BIGN	0.879	1.000	0.879	1.000	0.000
ICW	0.014	0.000	0.023	0.000	0.212
BIND	0.927	0.971	0.933	0.980	1.056
INSTOWN	0.701	0.739	0.694	0.741	0.560

This Panel presents the mean and median of variables matched on propensity scores. We use a one-to-one firm matching with a caliper of 0.1 to derive the PSM sample. # The test statistic represents mean difference t test for continuous variables and proportion test z statistic for indicator variables. Median difference tests yield the same results. As shown in the table, the t-values indicate there are no significant differences in the mean of firms that disclose considerations in auditor reappointment and the matched peers. See Appendix B for variable definitions.

TABLE 7 (continued)

Panel B: Regression of audit committee member firing following non-reliance restatement, conditional on disclosure of auditor reappointment factors

		(A)		(B)	
Dependent variables:		*AC_EXIT*		*AC_EXIT*	
Variable	**Pred. Sign**	**Coeff.**	**z-value**	**Coeff.**	**z-value**
Intercept		–9.300	–0.76	–6.667	–0.58
RESTANN	+	1.234***	2.89	1.232***	2.88
VOLDISC	?			–0.874**	–2.06
RESTANN × VOLDISC	?			–4.555***	–3.37
ACTIVISM	+	0.756**	1.79	0.831**	1.99
ACEXPRT	-	–1.571***	–2.39	–1.496***	–2.42
ACSIZE	+	–0.091	–0.17	–0.114	–0.19
ACTEN	?	–1.527***	–2.65	–1.361***	–2.41
ACSOSCAP	+	–1.309	–1.23	–1.145	–1.07
ACWOM	-	–1.765*	–1.29	–1.499	–1.08
ASSETS	?	–0.164*	–1.29	–0.155	–1.17
GROWTH	-	–0.752*	–1.38	–0.805*	–1.46
LEV	?	–0.060	–0.10	–0.002	0.00
LIT	+	0.256	0.53	0.193	0.40
ROA	-	0.008	0.05	0.078	0.48
ICW	+	0.887	1.13	1.229**	1.79
INSTOWN	+	0.614	0.62	0.174	0.19
ACAGE	+	2.476	0.83	1.794	0.64
RESTR	+	0.590	1.29	0.497	1.08
CEOTURN	+	0.822**	1.92	0.878**	1.85
NEWCEO	+	0.346	0.86	0.375	0.85
Year FE		Included		Included	
Industry FE		Included		Included	
Observations		1,542		1,542	
Wald Chi^2		139.94***		177.31***	
Pseudo R^2		0.185		0.215	

This table presents logistic regression results of effect of voluntary disclosure of auditor reappointment factors on the likelihood of audit committee member firing/ resignation following the announcement of non-reliance of previously issued financial statement. *, **, *** denote significance at the 0.10, 0.05, and 0.01 levels, respectively, based on the Huber-White sandwich estimate of variances. Significance is based on p-values that are one-tailed for variables with a predicted sign, and two-tailed otherwise. See Appendix B for variable definitions.

TABLE 7 (continued)

Panel C: Regression of likelihood of non-reliance restatement on disclosure of auditor reappointment factors

Dependent variable:		*IS_REST*	
Variable	**Pred. Sign**	**Coeff.**	**z-value**
Intercept	?	–11.945***	–2.95
VOLDISC	?	–0.653**	–2.09
RESTANN	+	1.774***	4.81
ACEXPRT	-	–0.878*	–1.74
ACSIZE	-	0.158	0.25
ASSETS	?	–0.766***	–3.58
GROWTH	?	–0.383	–0.78
LEV	+	1.304***	3.74
LOSS	?	–0.119	–0.42
ROA	?	1.171	1.00
BIGN	?	0.249	0.42
ICW	+	1.676***	3.07
BIND	-	–1.840	–1.21
INSTOWN	?	1.269**	2.04
RESTR	+	0.352	0.97
FOROPS	+	–0.077	–0.23
MERGER	+	0.447*	1.45
AUFEE	?	0.969***	2.81
Year FE		Included	
Industry FE		Included	
Observations		1,098	
Wald Chi^2		81.11***	
Pseudo R^2		0.183	

This table reports regression results of effect of voluntary disclosure of considerations in auditor reappointment on the likelihood that the financial statements the auditor is reappointed to audit will be restated in future periods for the PSM sample. *, **, *** denote significance at the 0.10, 0.05, and 0.01 levels, respectively, based on the Huber-White sandwich estimate of variances. Significance is based on p-values that are one-tailed for variables with a predicted sign, and two-tailed otherwise. See Appendix B for variable definitions.

TABLE 8
Two-stage regressions

		(A)		(B)	
Dependent variables:		*AC_EXIT*		*IS_REST*	
Variable	**Pred. Sign**	**Coeff.**	**z-value**	**Coeff.**	**z-value**
Intercept		–7.396**	–2.32	–0.781	–1.04
PREVOLDISC	?/?	–1.556	–0.84	–4.214***	–2.62
RESTANN × PREVOLDISC	?	5.492***	2.73		
RESTANN	+/+	0.277	1.23	0.940***	8.42
ACTIVISM	+	0.766***	4.31		
ACEXPRT	-/-	–0.412**	–1.82	–0.449***	–3.27
ACSIZE	+/-	1.206***	5.32	–0.540***	–3.10
ACTEN	?	–0.928***	–8.60		
ACSOSCAP	+	0.839***	2.68		
ACWOM	-	–1.750***	–2.57		
ASSETS	?/?	–0.151***	–3.57	0.038	0.95
GROWTH	-/?	–0.028	–0.40	0.053	1.18
LEV	?/+	0.087	0.78	0.302***	4.41
LOSS	?			–0.216***	–2.94
LIT	+	0.172	1.04		
ROA	-/?	–0.081**	–1.77	0.050	1.13
BIGN	-			0.082	0.80
ICW	+/+	0.198	1.01	1.193***	10.45
BIND	-			–1.356***	–3.32
INSTOWN	+/?	0.386***	4.24	0.120	1.57
ACAGE	+	0.710	0.93		
RESTR	+/+	0.081	0.59	0.266***	3.24
CEOTURN	+	0.249	0.92		
NEWCEO	+	0.441**	1.68		
FOROPS	+			–0.028	–0.36
MERGER	+			0.186***	2.37
AUFEE	?			0.050	0.80
Year FE		Included		Included	
Industry FE		Included		Included	
Observations		13,158		11,424	
Wald Chi^2		367.32***		576.21***	
Pseudo R^2		0.106		0.084	

This table presents the second-stage regression results of effect of voluntary disclosure of auditor reappointment factors on: the likelihood of audit committee member firing/ resignation (Column A), and the likelihood that the financial statements the auditor is reappointed to audit will be restated in future periods (Column B). *, **, *** denote significance at the 0.10, 0.05, and 0.01 levels, respectively, based on the Huber-White sandwich estimate of variances. Significance is based on p-values that are one-tailed for variables with a predicted sign, and two-tailed otherwise. See Appendix B for variable definitions.

TABLE 9
Alternative variable measurements

Panel A: Alternative measure of likelihood of restatement

Dependent variable:		*IS_RESTCORE*	
Variable	**Pred. Sign**	**Coeff.**	**z-value**
Intercept	?	–1.421	–1.02
VOLDISC	?	–1.163**	–2.24
RESTANN	+	0.770***	4.43
ACEXPRT	-	–1.301***	–5.18
ACSIZE	-	–1.014***	–3.33
ASSETS	?	–0.033	–0.49
GROWTH	?	–0.059	–0.56
LEV	+	0.142*	1.45
LOSS	?	–0.045	–0.38
ROA	?	0.230**	2.43
BIGN	?	0.017	0.11
ICW	+	1.378***	8.46
BIND	-	–1.350**	–2.25
INSTOWN	?	0.200**	2.50
RESTR	+	0.421***	3.16
FOROPS	+	–0.194*	–1.52
MERGER	+	0.109	0.83
AUFEE	-	0.095	0.77
Year FE			Included
Industry FE			Included
Observations			11,424
Wald Chi^2			341.89***
Pseudo R^2			0.089
Number of restatements			313

This panel reports regression results of the effect of voluntary disclosure of auditor reappointment factors on the likelihood of a restatement affecting core earnings. *, **, *** denote significance at the 0.10, 0.05, and 0.01 levels, respectively, based on the Huber-White sandwich estimate of variances. Significance is based on p-values that are one-tailed for variables with a predicted sign, and two-tailed otherwise. See Appendix B for variable definitions.

TABLE 9 (continued)

Panel B: Alternative measure of audit committee member firing

		(A)		(B)	
Dependent variables:		*logAC_EXIT*		*logAC_EXIT*	
Variable	**Pred. Sign**	**Coeff.**	**z-value**	**Coeff.**	**z-value**
Intercept	?	–0.124	–1.57	–0.102	–1.33
RESTANN	+	0.018***	2.66	0.006	1.10
VOLDISC	?			–0.010***	–2.89
RESTANN × VOLDISC	?			0.159***	3.07
ACTIVISM	+	0.028***	3.64	0.016**	2.24
ACEXPRT	-	–0.014***	–3.02	–0.014***	–3.00
ACSIZE	+	0.028***	4.68	0.027***	4.54
ACTEN	?	–0.026***	–7.13	–0.025***	–7.01
ACSOSCAP	+	0.022**	2.29	0.022**	2.29
ACWOM	-	–0.040***	–3.61	–0.038***	–3.43
ASSETS	?	–0.004***	–4.41	–0.004***	–4.26
GROWTH	-	–0.002	–0.91	–0.002	–0.84
LEV	?	0.002	0.58	0.002	0.58
LIT	+	0.003	0.92	0.003	0.90
ROA	-	–0.002	–1.06	–0.002	–1.09
ICW	+	0.004	0.57	0.003	0.46
INSTOWN	+	0.015**	2.03	0.015**	2.03
ACAGE	+	0.034**	1.77	0.029*	1.55
RESTR	+	0.000	–0.13	0.000	0.12
CEOTURN	+	0.009	1.00	0.008	0.90
NEWCEO	+	0.013*	1.53	0.013*	1.55
Year FE		Included		Included	
Industry FE		Included		Included	
Observations		13,158		13,158	
F-value		4.27***		4.13***	
Adjusted R^2		0.036		0.042	

This panel presents OLS regression results of the effect of voluntary disclosure of auditor reappointment factors on the likelihood of audit committee member firing/ resignation following the announcement of non-reliance of previously issued financial statements. *, **, *** denote significance at the 0.10, 0.05, and 0.01 levels, respectively, based on the Huber-White sandwich estimate of variances. Significance is based on p-values that are one-tailed for variables with a predicted sign, and two-tailed otherwise. See Appendix B for variable definitions.